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Starting Up:

First Steps towards the Integration of
Viral Hepatitis into HIV/AIDS/STD
Programs

Starting Up:

First Steps towards the Integration of Viral Hepatitis into HIV/AIDS/STD Programs

Integration of viral hepatitis into existing services has become a major goal of many HIV/AIDS/STD programs.

The logic for such integration is sound both organizationally and from the perspective of public health, considering that HIV and hepatitis B and C are bloodborne pathogens that are transmitted in similar ways and can be prevented by common interventions; similarly, hepatitis A, B, and C impact many of the same populations as HIV. The existence of a well-developed HIV/AIDS/STD infrastructure presents a prime opportunity to address viral hepatitis efficiently and effectively. Integration fosters an approach that maximizes the health of the public as well as of individuals by proactively offering testing, counseling, referral, and other services to high-risk individuals as well as conducting surveillance and other core public health functions.

Nonetheless, the introduction of such a broad new area of focus into HIV/AIDS/STD programs does not "just happen" but rather entails a sometimes complex and lengthy process. Working with programs throughout the country, NASTAD has identified a number of steps, outlined in this document, that various jurisdictions have taken to start the integration of viral hepatitis into their programs. The steps outlined in this document should not be regarded so much as a roadmap – to be followed in only one way, in one direction, at one pace – but rather as a menu of options. While we have ordered this document in a sequence that has been followed in a number of

successful attempts at integration, different programs will find themselves in different circumstances and with different needs, possibilities, and limitations. The distinct steps identified by NASTAD are:

IDENTIFYING STAKEHOLDERS AND WORK

GROUP DEVELOPMENT:

The experience of combating HIV has amply demonstrated the need for engaging members of impacted communities as well as public health professionals and care providers. Those with a strong interest in the development of viral hepatitis programs, "stakeholders" in the issue, should be involved from the ground-level up in the development of plans for integration. One effective approach for involving stakeholders is to include them on a work group.

NEEDS ASSESSMENT:

Although HIV/AIDS/STD programs may have a good anecdotal sense of the needs of their jurisdiction in terms of viral hepatitis, thorough planning often requires a more systematic and comprehensive needs assessment. Such a needs assessment can serve as the empirical basis of a program tailored to a jurisdiction's most pressing concerns. A needs assessment may be undertaken by a department of health or perhaps by a stakeholders' work group.

WHITE PAPER AND STRATEGIC PLAN DEVELOPMENT:

A work group can provide opinions and informed viewpoints and a needs assessment can provide facts, but at some point jurisdictions may wish to weave these into a unified public health strategy. A white paper presents a strategy for how to address an issue at hand. It provides a framework from which to begin adapting and/or building infrastructure. Similarly, a strategic plan is a method that can be used to convey a public health strategy as well as to help foster consensus on the most pressing needs within a jurisdiction. Strategic planning can provide a clear vision that helps the various stakeholders from working at cross-purposes.

SECURING LEGISLATION AND/OR FUNDING:

Programs obviously cannot function very well, or for very long, without the necessary public health authority and sufficient funding needed to implement programs. The preceding steps of identifying stakeholders, convening a group, conducting a needs assessment and publishing a strategy document can demonstrate the need for new

legislation and/or funding. However, in some jurisdictions, there may also be impetus from legislators themselves and/or from community advocates for legislation and funding. Therefore, some HIV/AIDS/STD programs may find themselves conducting their integration programs as a result of legislation rather than as a precursor to it. Nonetheless, the preceding steps may also be of use to jurisdictions in this situation.

**The Integration of Viral
Hepatitis into HIV/AIDS
Programs:**

Identifying Stakeholders and Work Group Development

The involvement of key stakeholders is a necessary first step towards addressing viral hepatitis issues. Whether the goal is to integrate viral hepatitis into a specific program or to develop a state plan to address viral hepatitis, stakeholder involvement and support are critical to ensure the success of the proposed activity.

WHO ARE THE STAKEHOLDERS FOR HIV AND VIRAL HEPATITIS INTEGRATION?

Stakeholders are people that have an investment in an issue. Integration stakeholders include people that are involved professionally or personally with activities either directly or indirectly related to HIV, STDs, and viral hepatitis. For example, integration stakeholders may include people who are infected with viral hepatitis, people who provide services to people infected with or at-risk for viral hepatitis, and people with expertise in evaluation or surveillance. If you are designing, implementing, and evaluating an integration program, stakeholders could include the people that will be administering the program, evaluating the program, and using the program.

HOW CAN STAKEHOLDERS BE IDENTIFIED?

Integration stakeholders can be found by drawing on individuals and organizations that are directly addressing viral hepatitis, HIV, and STD issues, and through organizations that are affected by viral hepatitis, such as substance abuse treatment organizations and corrections. Consider which individuals and/or organizations are needed to develop an effective integration strategy, and utilize established working relationships and seek referrals from professional contacts.

WHY IS STAKEHOLDER INVOLVEMENT IMPORTANT?

Stakeholder involvement ensures the appropriateness and credibility of proposed integration activities. Stakeholders bring an expertise to the integration process, which increases the likelihood of successful planning and development. Involvement of stakeholders also promotes a more inclusive approach to public health that is not only "top-down" from officials to impacted communities and individuals but also incorporates valuable "bottom-up" input and insight.

HOW IS STAKEHOLDER SUPPORT GAINED?

Stakeholder support for integration will likely fall across a continuum of those who are very enthusiastic and some who are very hesitant. The stakeholders eager to begin integration should be invited into the process at the beginning. Stakeholders that fall in the middle of the continuum may be swayed to support integration efforts by those that have already "bought-in." There are many reasons why individuals may be reluctant to get involved with integration activities. Stakeholders may feel that working on viral hepatitis issues presents a conflict of interest, or is a burdensome addition, to their respective programs. When stakeholders are hesitant, learn the reasons behind their reluctance and work with them individually to address their concerns. Sharing examples of successful integration projects and discussing what is expected of the stakeholder may help alleviate some hesitation. If reluctant stakeholders are willing, invite them to present their concerns to other stakeholders so that a dialogue around possible solutions can begin.

recommendations from jurisdictions

- Consider what people are needed to ensure the success and credibility of integration activities, and invite them to be a part of integration planning.
- Do not close the door to anyone. Everyone provides something valuable and needed to the process.
- In order to secure support from apprehensive stakeholders, utilize other credible stakeholders that have "bought-in."
- In order to secure support, share examples of successful integration activities from other communities.

One state health department garnered support from a hesitant key stakeholder by presenting the issue in a fun, engaging format. All key stakeholders at the department were invested in addressing hepatitis C issues except the director of health whose support was crucial for success. To assure that the director and others had state of the art knowledge and understanding of hepatitis C, members of the department developed an educational and interactive game to increase awareness of hepatitis C and to show how

PROFILE OF THE HOUSTON DEPARTMENT OF HEALTH AND HUMAN SERVICES' INTEGRATION OF HEPATITIS C SERVICES INTO STD CLINICS

The Houston Department of Health and Human Services (HDHHS) determined that the most cost-effective and efficient way to provide hepatitis C counseling and testing services would be to integrate services into existing STD clinics. STD clinics provided the most ideal setting for integration because of the existence of a counseling and testing infrastructure and the opportunity to access individuals that might be at risk for hepatitis C.

Four Houston clinics were targeted for integration, and HDHHS then sought support and input from key stakeholders at the clinics to design the integrated program. In order to determine "key stakeholders," HDHHS staff first identified clinic service areas that would be directly affected by the addition of hepatitis services. They then generated a list of people working in those service areas, and invited the named representatives to join the planning group. The role of the group was to examine what changes and additional steps the integration process would require and determine how to effectively integrate hepatitis C services into the existing clinic setting as smoothly as possible.

In the initial groups' planning meetings, HDHHS found that while all staff were eager to begin providing hepatitis C services, there were concerns about the additional amount of paperwork and of the added time to the patients stay at the clinic. HDHHS encouraged all staff members to share their concerns and to raise their questions, stressing that the planning group was a collaborative process and all opinions were crucial to effective program development. The staff "bought in" to the process because they had a voice that was valued in the planning and development of hepatitis C integration. In addition, the planning group continued to meet and discuss the process of implementation after hepatitis C services were integrated into the clinics. Planning group members discussed what was working with the implementation and what needed to be adjusted. This constant attention to the quality of the process helped ensure a successful integration.

Action Steps

identifying stakeholders

- Generate a list of what agencies are currently working on viral hepatitis issues.
- Generate a list of what agencies are impacted by viral hepatitis.
- Generate a list of individuals/organizations that have expressed an interest in viral hepatitis and HIV and STD integration issues.
- Generate a list of organizations/individuals whose support and/or resources are needed in order to effectively integrate.
- Determine a contact person for each listed agency.
- Consider what contact people have access to or credibility with high-risk communities and with policy makers.
- Ask each contact person to name individuals or organizations that should be included in viral hepatitis and HIV and STD integration planning. Exhausting the lists of stakeholders helps ensure that all key stakeholders are included. It is also important to give this process continued attention throughout the integration process to ensure that all key stakeholders are at the table.

Action Steps

securing stakeholder support

How to gain stakeholder support will vary based on what the stakeholder is being asked to support. Stakeholder support could be needed for something specific, such as a project to integrate hepatitis C testing with HIV testing, or it could be more general, such as joining a work group to address the issue of viral hepatitis integration. The following are general points to consider:

- Generate a list of what agencies are currently working on viral hepatitis issues.
- Utilize "opinion leaders," or stakeholders that have considerable influence among their peers, to gain the support of reluctant stakeholders.
- Utilize examples of effective and successful integration activities from other jurisdictions to help secure stakeholder support.
- Carefully consider what information the reluctant stakeholder would need to buy-in. If the stakeholder is concerned about demands on staff, demonstrate how these demands would be alleviated or addressed. If the stakeholder is concerned about the financial burden, demonstrate how this concern will be addressed. Tailor your message to the individual's specific concern(s).

hepatitis C fits in with other department programs. Their strategy was successful.

Once key stakeholders are identified and supportive, the development of a viral hepatitis work group is a possible next step. A work group provides a venue for individuals invested in the issue to come together to collectively determine goals, objectives, and action steps. Work groups can help plan, advise, and monitor viral hepatitis integration activities.

recommendations from jurisdictions

- Seek out individuals who are invested in the issue, but also those who possess commitment, capacity, and the willingness to cooperate.
- If possible, secure a travel budget to ensure participation from individuals throughout the state.
- Keep the work group small to ensure focus on particular issues.
- Establish clear objectives and a clear focus.
- Do not underestimate the role of the facilitator. A capable facilitator is necessary to keep the work group on task.

WHAT IS A VIRAL HEPATITIS INTEGRATION WORK GROUP?

A work group is comprised of people that come together to develop a response or a strategy to a concern or issue that all members of the group share. For our purposes, group members would include key stakeholders in viral hepatitis, HIV, and STDs. Group members may provide specific expertise in addressing viral hepatitis integration, and/or group members may be affected by the issue of integration.

WHY ARE WORK GROUPS IMPORTANT?

Work group development is an important strategy because it allows for key players of a particular issue to come together to generate solutions or action steps for a problem. Work groups bring people

together to develop a unified response to the issue at hand, and allow for members of various organizations to provide their expertise and opinions. Work groups can successfully address issues because they combine people, resources, and provide social organization.

HOW DO YOU DEVELOP A WORK GROUP?

Work groups can range from very informal to very formal. An organization or individual must take the lead in inviting potential members and hosting initial meetings. Once a group of individuals are committed to participating, the group can determine the rules, leadership style, and the mission of the work group. There is no standard way for a work group to operate. For example, some work groups elect a chair to facilitate the meetings, while other work groups prefer to rotate facilitators meeting-to-meeting.

PROFILE OF THE COLORADO DEPARTMENT OF HEALTH'S VIRAL HEPATITIS PROGRAM

In 1999, in response to increasing awareness of hepatitis C in Colorado, the Colorado Department of Public Health and Environment (CDPHE) initiated an internal workgroup, the "viral hepatitis crosscutting team." This team consists of members of STD, HIV, communicable disease, surveillance, and immunization programs. They began meeting on a monthly basis to strategize how to best integrate and address viral hepatitis issues as a state health department. This group of internal stakeholders is now working with a larger group of external stakeholders to develop a CDPHE strategic plan for viral hepatitis integration. The viral hepatitis crosscutting team now meets to review and analyze the feedback from internal and external stakeholders, prioritize critical issues, identify target risk groups, and establish goals and objectives. The plan that they develop will be brought to the larger group of external stakeholders, and the larger group will assist the department in determining priorities and action steps.

In September of 2000, the Viral Hepatitis Program was established to centralize hepatitis prevention activities in the Disease Control and Environmental Epidemiology Division. The Program includes the hepatitis activities previously in the Immunization Program, and newly funded hepatitis C activities. The Program seeks to promote the prevention of viral hepatitis by increasing disease awareness and prevention options; disseminating educational materials about services;

communicating strategies for detection and treatment; designing screening protocols and providing information and referral services.

Activities currently underway within the program are perinatal hepatitis B case management, hepatitis immunization outreach to at-risk populations, hepatitis C prevention awareness and promotion. The program is also working on collaborative projects with Denver Health and the Hep C Connection. These projects are designed to integrate hepatitis prevention messages into existing services in the STD/HIV clinics and correctional facilities; and to provide information and services to those who are infected. Many new projects will begin in the months to come and the program will expand its capacity to analyze hepatitis morbidity data.

PROFILE OF THE TEXAS DEPARTMENT OF HEALTH'S HEPATITIS C WORK GROUP ¹

In 1998, epidemiologists at the Austin/Travis County Health and Human Services (ATCHHS) Department and the Texas Department of Health (TDH) Infectious Disease, Epidemiology & Surveillance (IDEAS) Division, became concerned about an increase in reported cases of hepatitis C in Travis County. They decided to convene an informal work group to closely examine the issue.

Representatives invited to join the informal work group included members of Hep C Connection of Colorado, the Texas Medical Association (TMA), the blood bank industry, the Texas Department of Criminal Justice (TDCJ), and employees in the IDEAS Division within the Bureau of Communicable Disease and in the TDH Bureau of HIV & STD Prevention. The group decided to draft a white paper examining the issue of the increasing number of hepatitis C cases in Texas and its effects on the state. The white paper was later used as the basis for hepatitis C legislation.

In the spring of 1999, the informal group continued to meet and grow as word-of-mouth encouraged additional participation. In June of 1999 the group became a formal work group.

By the fall of 2001, the state work group consisted of approximately 190 members. Representatives of state and local health departments, TMA, TDCJ, nonprofit clinics, advocacy groups, and blood and tissue centers are all part of the work group. Others who attend include health care professionals,

patients, health education specialists, HIV counselors, outreach workers, legislative staff, church leaders, and pharmaceutical company representatives. Several members are out-of-state members who participate through email correspondence.

The work group now meets quarterly and serves as an advisory work group to TDH staff in implementing the hepatitis C legislation. Two working subcommittees were formed in the spring of 2000: a General Population Education Subcommittee and a Professional Education Subcommittee. Both subcommittees have drafted mission statements, goals, and strategies.

The subcommittees meet between work group meetings. They resolve issues brought forth by the larger work group, research issues for the larger work group, and plan the proposed projects. The working subcommittees report back to the larger work group quarterly.

TDH IDEAS staff are responsible for coordinating the larger work group and the two subcommittees. Staff schedule and facilitate the meetings, record minutes, maintain email correspondence, and serve as a liaison among the work group members. The work group minutes, meeting notices, and agendas are emailed to all work group members.

Action Steps

work group development

- Determine who is needed to be a part of the work group to ensure a comprehensive group that can address all issues presented by viral hepatitis integration.
- Generate and circulate this list among stakeholders to confirm thoroughness.
- Invite potential members to join.
- As a group, determine the mission statement, goals, and objectives of the work group.
- As a group, determine the leadership, rules, and roles of the group members.
- As a group, continually reassess whether all needed stakeholders are at the table.

Needs Assessment

Once stakeholders have been identified and a work group is formed, there are many different strategies that the work group can use in order to address viral hepatitis issues in their jurisdiction. The history, circumstances, resources, and capacity of each jurisdiction will all play a part in determining which approach to take. The following examples of conducting a needs assessment, writing a white paper, and developing a strategic plan present strategies that some jurisdictions have used to respond to viral hepatitis.

WHAT IS A NEEDS ASSESSMENT?

A public health needs assessment is a process used to determine the current status and needs around an issue for a defined population or geographic area.² The process involves collecting and analyzing primary and secondary data related to a particular topic. For example, a viral hepatitis needs assessment would include a review of state epidemiologic data on hepatitis, a review of the existing literature on hepatitis, and the collection of information from individuals and service providers affected by hepatitis. A needs assessment can be thought of as exploratory: it involves the collection of information to gain a greater understanding about a topic and can vary in scope. A broad needs assessment could examine what is needed to integrate viral hepatitis prevention and care into an existing public health infrastructure within a jurisdiction. A smaller needs assessment could specifically look at the needs related to developing a referral and care network for individuals infected with hepatitis C. For our purposes, we will concentrate on the steps needed to conduct a broad needs assessment.

WHY IS A NEEDS ASSESSMENT IMPORTANT?

A needs assessment determines what current resources, programs, and funding are in existence and what are lacking around an issue area. The review of available secondary data and the collection of primary data can help determine

what programs and resources are needed and feasible to comprehensively address an issue. This allows the public health community to prioritize issues and develop an effective, well-informed strategy. A viral hepatitis needs assessment is also important because of the dearth of data available; a needs assessment provides a focused, systematic plan to collecting data to comprehensively understand the needs across an issue.

WHO SHOULD BE INVOLVED IN CONDUCTING A NEEDS ASSESSMENT?

A needs assessment planning committee or work group should comprise individuals with some connection to the issue being assessed. Members should bring an area of expertise to help inform the assessment process. For example, a viral hepatitis needs assessment would include people that have

access to individuals that may be interviewed, people that can provide data and statistics, people that can help design and conduct the needs assessment, and people with expertise in data analysis. If funding is available, consultants may also be retained to provide technical expertise.

recommendations from jurisdictions

- Develop a plan for conducting the needs assessment before beginning the process.
- If there is no funding to conduct the needs assessment, consider using volunteers from local universities that may need to fulfill research requirements.
- Include representatives from local agencies in the planning of the needs assessment to ensure the credibility of the process.
- Involve individuals in the planning process from the communities that are affected.
- Pilot interview questions prior to beginning the needs assessment to ensure that your interview guides are effective.
- Employ process evaluation measures to ensure that the needs assessment is being conducted true to plan.
- Don't be afraid to adjust your plan in the middle of the process; the goal is finding the information that you are seeking, and flexibility is important.

PROFILE OF THE MAINE BUREAU OF HEALTH'S HEPATITIS C NEEDS ASSESSMENT³

In 1997, in response to reports of hepatitis C infection from the medical provider and grass roots public health community, the Maine Bureau of Health initiated mandatory case reporting of chronic HCV infection and began a case registry. The Bureau of Health also convened a hepatitis C working group, which evolved from a group of people working in the HIV community who were seeing a large number of clients infected with hepatitis C. Initially, members of the hepatitis C working group included clinicians, patient advocates, and public health professionals. The group met quarterly to discuss and strategize the state's response to hepatitis C. The group first concentrated their efforts on educating medical providers about hepatitis C, but over time determined that a formal approach was needed to develop a comprehensive response to hepatitis C in Maine. Due to the dearth of information on hepatitis C, the group then decided to conduct a statewide needs assessment in order to gain baseline data to inform a state hepatitis C strategy.

The Bureau of Health then convened a subcommittee of the working group to design the needs assessment. The needs assessment steering committee ultimately included individual members of the hepatitis C working group and other invited participants from the Department of Human Services, Bureau of Medical Services, Maine Center for Public Health, the Department of Corrections, and the Department of Mental Health, Mental Retardation, and Substance Abuse Services. The work group developed a plan for the needs assessment, and

obtained funding through the Bureau of Health and through pharmaceutical companies. This funding was used to hire a consultant to conduct the needs assessment.

The needs assessment was conducted over a four-month period. The consultant conducted focus groups, utilizing convenience sampling techniques, of representatives from the Office of Substance Abuse, the Department of Corrections, AIDS service organizations, and a hepatitis C community support group. The consultant also conducted twenty individual interviews with representatives from Maine AIDS service organizations, hepatitis C primary care providers, and hepatitis C patients from across the state. Two surveys were also administered in collaboration with other agencies: a national survey of prison medical doctors and a survey of a sample of primary health care providers and gastroenterologists in Maine.

Other data collected included a review of Maine hepatitis C epidemiologic surveillance data and hepatitis C health care expenditure data; a review of the public health literature; and phone interviews with public health officials from other states.

After the assessment was conducted, the results of the needs assessment were presented to the steering committee who developed recommendations for the course of action to be taken by the state. These results of the needs assessment and the steering committee's recommendations are now being used to inform the state legislature about possible strategies to address hepatitis C in Maine.

Action Steps

designing a needs assessment ⁴

Please note the following action steps are meant to be illustrative rather than exhaustive.

- Consider what questions you would like the needs assessment to answer. These questions will guide the needs assessment. For example, the Maine Bureau of Health was interested in learning the status of hepatitis C infection prevention and care in Maine. These questions led the researchers to find whether resources, such as hepatitis C counseling, testing, and medical care, were available in Maine, and to further investigate the state of the services that were available.
- Determine which sources of data (e.g. primary and secondary) would be best to utilize in order to answer specific questions. Secondary data can provide information on existing programs and epidemiology, and primary data can be used to expand on these data and answer questions that may emerge from the secondary data.
- Determine the best way to obtain the needed data. For example, with secondary data this would involve determining where and how data can be collected. There may be substance abuse agencies or other health care facilities that have been collecting information on patients that are infected with hepatitis, and they may be willing to share this information. For primary data, this would involve deciding what format (e.g. focus group, survey, individual interview) and what sampling strategy (e.g. probability, convenience, purposive) would be the most appropriate and efficient way to collect data.
- When you collect primary data, determine whether you will collect qualitative and/or quantitative data. It is strongly recommended that you collect both types of data. Quantitative data require that you use standardized measures that have predetermined response categories. This allows the investigator to assign numbers to the response categories and to perform statistical analyses on the data set. Quantitative measures would include surveys with predetermined response categories and interview guides that utilize close-ended questions. Qualitative data provides in-depth information on a limited number of people;

this information increases understanding of the participants and/or issue studied, but is not generalizable to the larger population. Qualitative measures include focus group and interview guides that utilize open-ended questions. Collecting both qualitative and quantitative data will provide a deep, rich picture of the issues that are being examined. For example, Maine surveyed a sample of state primary care practitioners and gastroenterologists to ascertain their level of knowledge, attitudes, practices, and beliefs for managing people with hepatitis C infection. This information provided a picture of medical practitioners across the state, and allowed for comparisons between both types of medical professionals. Maine also conducted interviews with medical specialists providing care to people with hepatitis C infection, and this allowed for a more in-depth understanding of the barriers and challenges they face in their practice.

- When collecting primary data, it is important to consider the appropriate sampling strategy. A probability sample enables one to make generalizations from the sample to the larger population. This design will only be realistic when there is a large population which can be enumerated from which to draw a sample. For example, Maine was able to draw a random sample of primary care practitioners in the state using lists of the entire population of state primary care practitioners provided by the Maine Board of Nursing and the Maine Board of Licensure. In comparison, it is difficult to draw a random sample of individuals to participate in focus groups and interviews. For example, if you are seeking information on injection drug users, it would be impossible to conduct a random sample because the total population of injection drug users in Maine is unknown. It is more likely that you will conduct a focus group or interviews by going to places where you know you can find injection drug users and asking for an interview. This is utilizing purposive sampling.
- Develop an interview and/or focus group guide and decide on appropriate settings and facilitators (if time permits, pilot test interview questions to ensure that your questions are eliciting the types of responses you intend). Focus efforts on obtaining information in the most concise and efficient way. For example, if you would like to obtain information from former injection drug users, consider utilizing methadone maintenance clinics to pilot test questions and/or hold focus groups. Patients in the clinic may be willing to linger in the clinic to answer a survey or participate in a focus group.
- Determine whether incentives/compensation will be provided to interview participants.
- Submit focus group and interview guides to the health department's Institutional Review Board (IRB) for approval.

Action Steps

conducting the needs assessment

- Assign responsibilities for data collection. It is possible to have one primary investigator who conducts all interviews, collects all secondary data, and administers all surveys. A primary investigator could be secured with funds or a volunteer investigator, from a local university for example, could be obtained. Several people could also be responsible for collecting the different pieces of data. With individual interviews and focus groups, it is important that fidelity to the interview guides is maintained across different investigators.
- Utilize professional and community contacts that can provide entrée to individuals and/or groups from whom you would like to collect data.
- Conduct a "resource inventory." This involves listing in all of the services available in the community or geographic area to which the needs assessment is confined that provide services and/or expertise related to the issue area.

Action Steps

analyzing and presenting the results of the needs assessment

analyzing the results

- Check each piece of data for completeness to determine if it can be included in the data set.
- Utilize individuals in the health department that have experience analyzing qualitative and quantitative data. Sophisticated data analyses will require statistical software, but frequencies and comparison measures can be run without the aid of software. Qualitative data analysis requires transcription of the interviews and considerable time to read through the data and identify major themes. Consider using EZ-Text⁵, a free qualitative data analysis program offered by the CDC, to help sort and analyze the data.
- If resources permit, have more than one person analyze both the qualitative and quantitative data to ensure reliability.
- Return to the resource inventory conducted and identify whether these resources are meeting the needs identified in the data. Clearly outline where there is unmet need.

presenting the results

- In the written report, include at minimum the following chapters: introduction, methodology, results, and conclusions/recommendations. Also provide an executive summary, and appendices of survey instruments used and other information that would help explain to the reader the process.
- Present the results at a meeting that draws all of the stakeholders together. Steps for the next course of action can then be developed.

**The Integration of Viral
Hepatitis into HIV/AIDS
Programs:**

White Paper and Strategic Plan Development

A white paper is an additional strategy that can be used to advance a public health response to viral hepatitis. A white paper differs from a needs assessment in that it outlines a clear strategy that can be used to address a specific issue. A white paper presents available data to support a particular viewpoint, but does not involve primary data collection.

WHAT IS A WHITE PAPER?

A white paper communicates a position by presenting evidence and proposing solutions based on existing data and resources. It is a brief and concise paper that outlines an issue and presents a strategy to address the issue. For example, a viral hepatitis integration white paper could present the issue of integration with HIV/STD programs, provide the evidence that supports integration (e.g. shared target populations, similar prevention messages, cost-effectiveness), and propose a strategy on how to effectively integrate programs.

WHY IS A WHITE PAPER IMPORTANT?

A white paper is a medium that can be used to present an argument and offer solutions. It is a succinct paper that provides the reader with a problem, offers evidence to support the problem, and presents a strategy on how to best address the problem. Its goal is to persuade the reader, and to effectively convey the strategies supported by an organization or work group addressing the particular issue. A white paper can be used to influence individuals in decision-making roles on how to respond to an issue.

WHO SHOULD BE INVOLVED IN WRITING A WHITE PAPER?

Who is involved in the production of a white paper will vary based on the messages conveyed and the strategies proposed. For example, the Texas Department of Health's (TDH) hepatitis C white paper was drafted by members of TDH, because the paper presented strategies that TDH could use in order to address hepatitis C infection in Texas. It is recommended that a small number of people are involved in the development of the white paper, and that the paper is reviewed by a larger group of people that have expertise in the issues presented in the paper.

A white paper presenting a public health strategy can be the impetus needed to advance policies or a program. It is smaller in scale than a strategic plan. A strategic plan also

communicates a public health strategy, but the development process is more time-intensive, its recommended actions are limited to what is feasible within a certain time frame, and a broader range of stakeholders may be involved.

recommendations from jurisdictions

- If the paper is framed as “the response of public health,” the state health department should take the lead on developing and writing the paper.
- A white paper enables you to present your solutions to the problem at hand.
- Think of a white paper as a vehicle to market what you believe is the solution to a problem at hand.
- Share the white paper with experts that can offer you advice on the content and the presentation.

WHAT IS A STRATEGIC PLAN?

A strategic plan is a written document that requires participants to detail a problem and strategize how to best address the problem within a certain time frame. Strategic planning enables people to clearly define the purpose of what they are doing and to establish goals and objectives consistent with that mission. A strategic plan results in fundamental decisions that shape and guide an organization or group's response to an issue. Strategic planning is necessary when a change from current

practices is needed or anticipated. The emergence of hepatitis C as a major public health challenge is proving to be of sufficient magnitude and complexity that some jurisdictions feel the need for a full-scale strategic plan.

**PROFILE OF
THE TEXAS DEPARTMENT OF HEALTH AND HUMAN SERVICE'S
WHITE PAPER:
"HEPATITIS C: AN EMERGING HEALTH CONCERN FOR TEXANS" ⁶**

In 1998, the Texas Department of Health (TDH) convened an informal work group to address growing concerns around the prevalence of hepatitis C in Texas. The informal group included representatives from hepatitis organizations, the Texas Medical Association (TMA), the blood and tissue industry, the Texas Department of Criminal Justice (TDCJ), and employees from the Infectious Disease, Epidemiology & Surveillance Division (IDEAS) within the Bureau of Communicable Disease and employees in the TDH Bureau of HIV & STD Prevention.

The work group determined that writing a white paper would be an effective way to convey information, demonstrate need, and provide recommendations for a public health response to hepatitis C in Texas. The white paper recommended specific actions needed for TDH to enhance the state's public health infrastructure to include prevention, counseling, and treatment for hepatitis C. The white paper includes information on epidemiology, testing, and emerging treatments on the market for hepatitis C. It also provides estimates on screening and counseling costs.

The white paper was shared with Texas Rep. Glen Maxey (D-Austin), who used this information to draft House Bill (HB) 1652. He presented HB 1652 to the 76th Texas Legislature, which passed the bill and appropriated approximately \$3 million for the next biennium for implementation.

Action Steps

writing a
white paper

- Carefully consider your audience. How are their interests involved? What evidence is likely to engage them?
- Frame your paper to appeal to the audience you would like to persuade.
- Gather data to support your argument.
- Keep your recommendations simple and direct.
- Provide data to back up your recommendations.
- Disseminate your paper to key policy makers and opinion leaders.

WHY IS A STRATEGIC PLAN IMPORTANT?

A strategic plan allows for a group or organization to clearly communicate their goals and objectives to the community, policy makers, and funding agencies. It allows a group to assess needs, clarify purpose, prioritize issues, strategize future directions, and develop a coherent basis for decision-making.

In addition, the process of developing a strategic plan allows time for the development of consensus and the obtaining of “buy-in” from diverse parts of a community. A strategic plan also provides a base for which progress can be measured. Strategic planning begins with a broad goal and ends with the development of specific action strategies.

WHO SHOULD BE INVOLVED IN THE PLANNING?

People who have an investment and expertise on the issue at hand should be involved in the strategic planning process. A strategic plan addressing viral hepatitis integration would include all key stakeholders from within the jurisdiction’s public health establishment involved with viral hepatitis. These would include but not be limited to representatives from STD, HIV, substance abuse agencies, corrections, surveillance, and immunization. Stakeholders

may often also include representatives from impacted communities, including advocacy organizations, service agencies, support groups, and people living with the disease. In the case of HIV/AIDS, the inclusion of people living with HIV/AIDS in planning processes has become a key tenet, both because it empowers these individuals and also because of the important first-hand information and insight that they can provide.

recommendations from jurisdictions

- Seek out stakeholders to be a part of the strategic planning process.
- Consider using a steering committee as a strategy to bring all stakeholders into the planning process.
- Involve individuals from community-based organizations and those infected with hepatitis.
- Seek funding to help cover the costs for individuals from organizations without money to fund their participation.
- Split the process up using subcommittees to ensure that individual issues are given the focus and attention needed.

Individuals involved in the strategic planning process may vary in the amount of participation and investment of time dedicated towards crafting the plan. For example, in Colorado, the Colorado Department of Public Health's (CDPH's) strategic planning process has divided roles among the internal (employees of the health department) and external (e.g. hepatitis community based organizations, AIDS service organizations, substance abuse agencies) stakeholders. First the internal and external stakeholders met together and hired a facilitator to lead the meeting. At this meeting they reviewed existing data available on viral hepatitis for Colorado and the nation, reviewed the resources that they currently have in place or have the capacity to develop to address viral hepatitis, and conducted a gap analysis to determine the challenges and obstacles. The internal stakeholders are now meeting to prioritize the critical issues and to develop specific goals and objectives. Once that process is completed, the internal stakeholders will bring their suggestions to the larger group for discussion and feedback.

PROFILE OF CALIFORNIA'S HEPATITIS C STRATEGIC PLAN ⁷

In 1999, California determined that a strategic planning process was needed to develop a state response to hepatitis C. The California Department of Health Services (CDHS) and local health officials identified key stakeholders across the state to participate in the planning process. This "steering committee" met twice to outline the problem, to conduct a resource inventory of the hepatitis C services and activities across the state, and to identify major challenges and obstacles. The steering committee also identified five primary themes on which to focus their efforts: primary prevention, secondary prevention, professional and public education and training, surveillance and research, and long-term care and rehabilitation. The members of the steering committee then reviewed existing information on hepatitis C and drafted problem statements, ideas for a vision and mission, and suggested other groups to include in the planning process.

Additional participants joined the steering committee to form the Working Group, and two, two-day sessions of the Working Group were held. National and state experts were invited to provide current information on hepatitis C. The Working Group then refined the steering committee's problem statements, mission, and vision, and developed guiding principles.

In order to effectively address diverse issues, the Working Group then divided into five small task groups based on the identified five goal areas. Each task group developed a goal statement,

objectives, and action steps to address the identified goal. After each small group meeting, the larger group reconvened to discuss the recommendations and actions of each task group and to come to consensus on the proposed actions.

The Working Group decided to prioritize the objectives based on the ability and capacity of the partners to address them within the three-year plan. The Working Group assigned the highest priority to the objectives considered to be the most critical in order to reach the goal of preventing transmission of hepatitis C and reducing transmission from those already infected.

The Working Group then recommended which high priority, key issues would be included in the three-year plan, and the result was a comprehensive strategic plan, which includes the mission, vision, guiding principles and five goals, with objectives and action plans for each. The plan presents a strategy with suggested actions that California partners and stakeholders can take to address hepatitis C. The goals, objectives, and action steps outlined in the plan are recommendations from the Working Group to the CDHS. The entire strategic planning process took a year to complete, and has given those working on hepatitis C issues across the state a common logic and shared objectives. It should be noted that independent of this planning process, state legislation was passed which allocates funding for hepatitis C outreach, screening, and education; the strategic planning process helps ensure that the funds will be used effectively and coherently across the state.

Action Steps

writing a strategic plan

The following suggested steps are drawn from strategic planning models for non-profit organizations ^{8,9} and from the processes used by California and Colorado. This is just one possible approach that can be taken to develop a strategic plan.

- Identify key stakeholders and form a work group.
- As a work group, assess the strategic planning process and determine whether you have the capability, commitment, and time to embark on the process. Strategic planning takes considerable time and energy. If the work group is unsure about their ability to undertake the process, the group should consider directing their energies towards other activities, such as developing a white paper, collecting information on hepatitis providers, conducting a resource inventory, etc.
- Identify specific issues that the work group should address in an agreed upon time frame. For example, California's overall goal is to prevent transmission of hepatitis C and reduce transmission of those already infected, but five primary goal areas were identified in order to narrow the focus and allow for realistic outcomes within the defined three-year time frame. The five goal areas that California identified were primary prevention, secondary prevention, professional and public education and training, surveillance and research, and medical management and rehabilitation.
- Clarify the roles of the members of the work group in the planning process. California's strategic planning process was initially led by a steering committee, who then invited partners across the state to join a Working Group. The larger Working Group was then split into five smaller task groups in order to address the identified five goal areas. In Colorado, the Colorado Department of Health's strategic planning process has divided roles among the internal (employees of the health department) and external (e.g. hepatitis community based

organizations, AIDS service organizations, substance abuse agencies) stakeholders. First the internal and external stakeholders met together and hired a facilitator to lead the meeting. At this meeting they reviewed existing data available on viral hepatitis for Colorado and the nation, reviewed the resources that they currently have in place or have the capacity to develop to address viral hepatitis, and conducted a gap analysis to determine the challenges and obstacles. The internal stakeholders are now meeting to prioritize the critical issues and to develop specific goals and objectives. Once that process is completed, the internal stakeholders will bring their suggestions to the larger group for discussion and approval.

- Identify the information that must be collected in order to make sound decisions. Key components of a strategic plan include a mission statement, a vision statement, a resource inventory, and an assessment of needs.
- Develop a mission statement. A mission statement should articulate the purpose of the group and what it seeks to accomplish; the main activity through which the group works to fulfill this purpose; and the principles or beliefs that guide the group. A mission statement is a clear message that provides a focus and foundation for the group.
- Develop a vision statement. A vision statement articulates what success would look like for the group. For example, California's vision statement states: "The vision for hepatitis C prevention and control is a coordinated local and statewide effort supported by public and private partnerships providing comprehensive, science-based hepatitis C services that assures:
 1. Affordable and accessible hepatitis C counseling, screening, education, treatment, harm reduction and prevention efforts are available to all persons in need;
 2. Education of all patients, providers, policy makers, and the public about hepatitis C;
 3. Collection and analysis of hepatitis C data and dissemination of findings to stakeholders;
 4. Support for hepatitis C-related research; and
 5. Reduction in the number of new hepatitis C infections and hepatitis C-related deaths."
- Assess the internal and external environment in light of what you wish to accomplish. This involves identifying what opportunities and barriers the group may face in accomplishing its mission.

1. Identify external environment challenges, barriers, and strengths. This would include, for example, an understanding of the current political climate in your jurisdiction and what effect this will have on identified goals.
 2. Identify internal strengths. This involves cataloging key strengths that work group members and their respective organizations bring to viral hepatitis integration. This would include, for example, an exhaustive listing of all the services available for hepatitis C prevention and care across the state, in addition to other resources that individuals may bring, such as access to policy makers, skills in research design and evaluation, and entrée to affected populations. Internal strengths may also include the capacity that the individual organizations and the work group have to address challenges.
 3. Identify internal challenges or obstacles. This involves looking at the strengths and resources available and assessing what needs are not being met, and how the work group is challenged to meet those needs. Some challenges could include the lack of a coordinated system for reporting hepatitis C infection across the state, and/or the lack of funding to develop training and education for health care professionals.
- Identify goals and objectives and prioritize which goals are most important. As a group, decide which goals can feasibly be achieved in the defined time frame, and develop the objectives needed to meet those goals. Remember to keep your objectives SMART: specific, measurable, action-oriented, realistic, and time-bound. ⁴
 - Develop action steps to meet the identified goals and objectives. The following is an example of a goal, objective, and action steps from California's strategic plan:

Goal: Significantly decrease the number of people newly infected with hepatitis C using the most effective primary prevention strategies.

Objective: Develop and implement a targeted statewide media campaign to increase awareness and provide risk reduction information about hepatitis C. The campaign will be aimed at the general public, identifies high-risk populations, and other populations that may be underserved because of language, culture, or other barriers.

Action steps: During year one, the CDHS (contingent on funds) should:

1. Convene a group to advise the Department on the planning and implementation of a targeted statewide media campaign.
2. Develop targeted social marketing, public relations, and advertising strategies using the best epidemiological information available, and issue requests for proposals to implement them.
3. During year one, advocacy groups will:
Take the lead in the development of the appropriate policy and legislation to support a hepatitis C media campaign.

**The Integration of Viral
Hepatitis into HIV/AIDS
Programs:**

Securing Legislation and/or Funding

Integrating viral hepatitis into existing HIV and STD programs takes the support and careful planning of stakeholders invested in the issue. Viral hepatitis programs can be integrated for less money than they would cost to stand alone, but in order to be sustainable,

money is necessary to fund staff and program operations. Resources to fund programs can be found through private and government sources.

recommendations from jurisdictions

- Contact pharmaceutical companies. Many companies have small amounts of money that they can provide with no strings attached.
- Keep abreast of CDC program announcements.
- Utilize the diversity of the populations affected by viral hepatitis to appeal to a wide range of funding agencies.
- Propose using funds to expand viral hepatitis activities into existing successful programs and infrastructures.
- Consider collaborating with your local Veterans Hospital.

WHY IS SECURING FUNDING AND LEGISLATION TO SUPPORT VIRAL HEPATITIS INTEGRATION ACTIVITIES IMPORTANT?

Integrating aspects of viral hepatitis programs into existing HIV and STD programs may be achieved with limited funds, but obtaining additional funding to support the development of a viral hepatitis infrastructure will be necessary. Identifying stakeholders, developing a work group, elucidating the needs around viral hepatitis, and developing a plan to address these needs are all key tactics in a strategy to secure legislation and/or funding for integration activities.

WHO HAS PROVIDED FUNDING TO JURISDICTIONS FOR VIRAL HEPATITIS?

Private and government sources have provided funding to support viral hepatitis

activities. Funding from the federal government is largely

provided through the Centers for Disease Control and Prevention (CDC), while state governments have appropriated funds and/or mandated viral hepatitis programs through state legislation. Although private sources often provide less substantial awards than government sources, some jurisdictions have used private funds to augment other funds or to fund small viral hepatitis planning activities. Please see Appendix A for a more detailed description on viral hepatitis funding.

WHAT JURISDICTIONS HAVE PASSED VIRAL HEPATITIS LEGISLATION?

Several states have passed laws or received appropriations from their state legislatures to address viral hepatitis, particularly hepatitis C. Hepatitis C drew national attention and concern from policy makers and their constituents after the Surgeon General initiated national “look back” efforts in

1998, which was a campaign to notify the recipients of blood from donors infected with hepatitis C. Appendix B highlights examples from the following five states who have received funding from their state legislatures to address viral hepatitis: Arizona, California, Colorado, Florida and Texas. Although their processes and outcomes differ, the five states share some common factors that helped to advance hepatitis C legislation. These factors include awareness and initiation of the issue by either the community, health department, or policy makers; the development of

recommendations from jurisdictions

- Utilize stakeholders who have access to policy makers.
- Utilize a diverse group of constituents to share their personal stories about viral hepatitis. Veterans and individuals that were infected with hepatitis C through contaminated blood are often more attractive to policy makers than other high-risk populations.
- Integrate viral hepatitis into existing programs and infrastructures that have demonstrated success, such as HIV / AIDS programs.

coalitions to secure and maintain support for the legislation; and an understanding of each state’s legislative process.

Action Steps

securing funding and legislation for viral hepatitis

funding

- Research opportunities for funding. Consider foundations or pharmaceutical companies that may have viral hepatitis or public health initiatives. Some companies include Schering Plough: <http://www.schering-plough.com>; GlaxoSmithkline: http://corp.gsk.com/community/gcp_criteria.htm; or search for foundations offering funding: <http://www.fdncenter.org>.
- Think creatively about how to frame your project. Consider all the diverse populations and issues involved and search for funding agencies with an interest in those populations/issues. For example, consider approaching funding agencies that provide money to veterans, to hemophiliacs, to substance abusers, to women, or to communities of color. Consider how your project fits into an agency's philanthropic mission, and approach the agency from their perspective.
- Demonstrate the need for money to address viral hepatitis by presenting epidemiological data and programmatic data from your state to potential funding agencies. A strategic plan, needs assessment, or white paper are also valuable documents that help illustrate the problem.
- Present a detailed plan on how you propose to use the money, and how the project will be sustainable.

legislation

- Contact local HIV and hepatitis advocacy groups who are interested in getting involved.
- Present a state legislator with a plan that can be used to draft legislation.

**The Integration of Viral
Hepatitis into HIV/AIDS
Programs:**

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⁵ Carey, James W.; Wenzel, Patrick H.; Reilly, Cindy; Sheridan, John; Steinberg, Jill M.; and Harbison, Katherine (2000). *CDC EZ-Text: Software for Collection, Management and Analysis of Semi-structured Qualitative Databases* (Version 3.06C, released February 7, 2000). Atlanta, GA: Developed by Conwal, Inc. and CESSI, Inc. for the Centers for Disease Control and Prevention. Software distributed at: <http://www.cdc.gov/hiv/software/ez-text.htm>.

⁶ *Hepatitis C: An Emerging Health Concern for Texans*, Texas Department of Health, Infectious Disease Epidemiology and Surveillance Division, 1998.

⁷ *The Hepatitis C Strategic Plan: A collaborative approach to the emerging epidemic in California*. California Department of Health and Human Services, Office of AIDS Available on the world wide web at:
<http://www.dhs.ca.gov/ps/dcdc/pdf/Hepatitis%20C%20Strategic%20Plan%20-%0d%202001.pdf>.

⁸ Allison, M., Kaye, J. (1997). *Strategic planning for non - profit organizations: A practical guide and workbook*. New York: The Support Center for Strategic Planning.

⁹ Bryson, John M. (1998). *Strategic Planning for Public and Nonprofit Organizations*. San Francisco: Jossey-Bass.

Appendix A

PRIVATE SOURCES OF FUNDING

Several jurisdictions obtained “seed money” from pharmaceutical companies to support viral hepatitis projects. Maine received funding from Schering Oncology Biotech, Glaxo Smithkline Beecham, and Merck & Company to conduct a needs assessment. Rhode Island partnered with Schering Plough to survey state medical providers about hepatitis C and to fund a nurse who provided case coordination to clients infected with hepatitis C. Florida partnered with Home Access testing kits to develop a statewide hepatitis hotline which provides free testing kits to eligible callers.

STATE SOURCES FOR FUNDING

Several jurisdictions have received appropriations from their State Legislature to fund viral hepatitis activities. Appendix B provides information on Arizona, California, Colorado, Florida and Texas.

FEDERAL SOURCES OF FUNDING

Centers for Disease Control and Prevention (CDC)

The Division of Viral Hepatitis (DVH)

- The Division of Viral Hepatitis in the National Center for Infectious Disease (NCID) at CDC provided a total of \$6,888,218 to support viral hepatitis activities in FY 2001. \$2,358,484 of that total was awarded to 15 state and local health departments under program announcement 00046: “Integration of Viral Hepatitis Prevention Services Into Existing Prevention Programs.” This cooperative agreement is to develop strategies and guidance for integrating recommended viral hepatitis prevention and control services for persons at high risk for infection in settings that pro-

vide public health services, and to improve public health service delivery by integrating viral hepatitis prevention services to reach persons at high risk of disease. The application was competitive and all state and territory health departments, the six directly funded cities, and Baltimore, Maryland were eligible to apply. Funding was distributed to 15 jurisdictions for a twelve-month budget period within a project period of up to three years; the average award was \$200,000.

- DVH also disbursed \$2,000,000 to thirty-four jurisdictions to support hepatitis C coordinators. The hepatitis C coordinator serves as a liaison with other public health programs such as HIV/STD, immunizations, substance abuse, and corrections. Goals of the coordinator position include helping to successfully integrate hepatitis C into existing prevention programs, ensuring medical referrals for hepatitis C infected individuals, supporting hepatitis C surveillance efforts, ensuring laboratory capabilities for hepatitis C testing, conducting trainings for health professionals and organizations on hepatitis C, and evaluating the effectiveness of hepatitis C prevention activities. These awards are made through the Epidemiology and Laboratory Capacity (ELC) cooperative agreement program; Hepatitis Prevention and Control is one of six programs funded under the ELC cooperative agreement. The application is competitive, funding proposals range between \$55,000 to \$110,000, and project periods are up to three years.
- The ELC cooperative agreement also provided \$500,000 to seven hepatitis C surveillance projects, five of which are in different locations from states with hepatitis C coordinators. The purpose of these grants is to assist grantees in the development, implementation, and evaluation of surveillance systems to identify persons with chronic hepatitis B virus and hepatitis C virus infection.
- DVH also provided \$200,000 to the National STD/HIV hotline and STD/HIV Prevention and Training Center Network, and \$250,000 to state and local health departments for special HIV integration efforts.
- DVH awarded a total of \$1,433,000 to 10 national and regional non-profit organizations under program

announcement 00047: “A Cooperative Agreement to Test, Disseminate and Evaluate (A) Educational Materials and Messages, and (B) Training Programs Concerning Prevention and Control of Viral Hepatitis.” The application was competitive, the average award is \$143,000, and the project period is three years.

DVH also awarded the National Commission on Health Care (NCCHC) \$146,734 to help support the development of curricula on viral hepatitis education to correctional officers.

Centers for Disease Control and Prevention (CDC)

The National Immunization Program (NIP)

- Other CDC funding to support viral hepatitis activities is given through the National Immunization Program (NIP); NIP provides funding to every state and territory for a hepatitis B coordinator. The hepatitis B coordinator ensures that pregnant women with hepatitis B infection are identified so that transmission to their baby is prevented, and promotes hepatitis B vaccination to all children and all groups that are at high-risk of infection. NIP also supplies hepatitis A and B vaccine to states through the Vaccines for Children Program (VFC). VFC is an entitlement program that provides vaccine free of charge to VFC-eligible children through public and private providers. VFC-eligible children include: children under 18 who are eligible for Medicaid; children without health insurance; Native American and Alaskan Native children; and children with health insurance that does not cover immunizations, provided that they seek care at a Federally Qualified Health Center. In addition, NIP provides hepatitis A and B vaccine to states under the 317 program; this program is authorized under Section 317 of the Public Service Act. NIP allocates 317 funds indirectly to jurisdictions by providing them with an account at CDC through which they can purchase vaccine against.

Department of Veterans Affairs (VA)

Veterans Health Administration (VHA)

- The Department of Veterans Affairs (VA) is another federal source that supports viral hepatitis. In FY

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2001 the VA appropriated nearly \$152 million for hepatitis C programs and services. These dollars were not earmarked for any specific hepatitis C activity such as counseling, testing, or treatment; VA facilities receive the funding based on each facility's hepatitis C workload under a allocation system called Veterans Equitable Resource Allocation (VERA).

Appendix B

ARIZONA

In 1997 hepatitis C became a reportable disease in Arizona, and a hepatitis C surveillance system at the Arizona Department of Health (ADH) was not yet in place to manage the lab reports that began to be submitted. An epidemiologist who worked at ADH was very interested in increasing awareness of hepatitis C and increasing the capacity of the public health system to address hepatitis C, and he shared his interests with an Arizona state legislator who was also a close friend. Also at this time another Arizona state legislator began receiving calls from constituents infected with hepatitis C. The result of this heightened awareness of hepatitis C among state legislators was that in 1999, Rep. Gerard (R) proposed a strike-everything amendment to HB 2482, which allocated \$350,000 from an existing allocation from the tobacco tax and health care fund for operational costs of the Arizona State Immunization Information System. The strike-everything amendment read as follows: "The strike-everything amendment provides funding from an existing allocation from the tobacco tax and health care fund to establish a statewide surveillance and targeted education program for persons with HCV." The \$350,000 allocation was for FY's 1999-2000 and 2000-2001.

The success of this allocation was largely due to the efforts of opinion leaders in ADH who had access to influential policy makers; the public was not involved in lobbying the legislature for funding. However, in 2000 the bill came before the legislature for refunding and by this time, an AIDS community and hepatitis C constituency had evolved around hepatitis C issues, and the group

lobbied the legislature to refund the bill. Their actions combined with ADH's request for refunding resulted in continued funding of the program at \$350,000.

CALIFORNIA

In 1998 the California state legislature passed SB 694, the Hepatitis C Education, Screening, and Treatment Act, sponsored by Representative Polanco (D- Los Angeles). Rep. Polanco serves as the chairman of the prison construction and operations joint committee. Survey research in California's correctional facilities was emerging at this time that estimated a high prevalence of hepatitis C among California's inmates.

In response to this information, Rep. Polanco drafted SB 694, and contacted the American Liver Foundation's (ALF) San Diego chapter to help garner support from community organizations across the state. The ALF-San Diego immediately began a letter writing campaign to influence legislators to support the bill, and approximately thirty-three organizations which included universities, non-profit agencies, health professional associations, and pharmaceutical companies signed on in support of the bill. This bill appropriated no funds for hepatitis C, but declared the intention of the Legislature "to study the adequacy of the health care delivery system as it pertains to hepatitis C." The bill also required the State Department of Health Services to make available protocols and guidelines developed by the National Institutes of Health and California legislative advisory committees on hepatitis C for education for physicians and health professionals and training community service providers. This bill specifically states that nothing in the bill should be construed to require the department to develop or produce any protocol, guideline, or proposal.

SB 694 laid the foundation for SB 1256, which was signed into law in September of 2000. This bill, sponsored by Rep. Polanco, builds on SB 1256 and allocates \$1.1 million to fund hepatitis C education, outreach, and screening. This bill earmarks half of the appropriated funds to educate, screen, and treat veterans for hepatitis C. The bill directs the Director of Health Services to develop and implement a public education and outreach program to raise awareness of hepatitis C among high-risk populations, health care professionals, and the general public; to include information

on co-infection with HIV or hemophilia with hepatitis C in all professional training and care and treatment programs under the department's jurisdiction; to develop a program to work with the Department of Corrections to identify and provide counseling and treatment to inmates infected with hepatitis C; to advocate local public health officials to provide hepatitis C screening for the uninsured; and to include hepatitis C counseling, education, and testing into local state-funded programs that address HIV, STDs, and TB.

COLORADO

In 1999, the Colorado state legislature passed HB 99-1118: "An Act concerning implementation of a public health program to address hepatitis C, and making an appropriation therefor." Rep. Johnson (R- Larimer Weld) was the lead sponsor in the House and Rep. Teck (R-Mesa) was the lead sponsor in the Senate. Hep C Connection, a non-profit hepatitis C organization in Denver, approached Rep. Johnson about sponsoring the bill. The bill faced very little opposition in the State Legislature. The bill authorizes the executive director of the department of public health and environment to create a hepatitis C education and screening program. It directs that the program include the coordination of local public health officials, health care professionals, public institutions, and community organizations to identify high-risk populations, to assist in the implementation of a screening process, and to provide information on referral services or assist in finding treatment for persons with hepatitis C infection. This bill also requires the program to provide public education and outreach services to raise the public's awareness and understanding about hepatitis C.

The bill states that the program may be implemented in stages, based on funding available. It further allows the director of the department of public health and environment to implement a system to investigate, collect, analyze, and report data on hepatitis C, contingent on resources available.

This bill appropriated \$200,000 from the general fund to the department of public health and environment for implementation of the act.

FLORIDA

In 1998, the Surgeon General wrote a national letter to notify transfusion recipients of the potential risk of having received blood from donors infected with hepatitis C. At that time, the Florida Department of Health (FDOH) began to plan for the needs hepatitis C would present to the public health system. In addition to internal planning, the FDOH sponsored two "Hepatitis Summits." Participants invited to the summits included partners such as substance abuse agencies, individuals working in immunization programs, community based organizations, the American Liver Foundation, Hep C Alert, hepatitis activists, and veterans organizations. At the same time as the summits, several private corporations were meeting with the legislature to discuss viral hepatitis funding. In 1999, the Florida state legislature appropriated \$2.5 million from a general legislative appropriation in FY 1999-2000 to establish the Florida Hepatitis and Liver Failure Prevention and Control Program.

In FY 2000-2001, the Conference Report on House Bill 2145, General Appropriations Act, Specific Appropriation 529 mandated the development of a statewide hepatitis hotline to provide information and counseling related to hepatitis and the utilization of FDA approved at-home testing kits. The Florida hepatitis A program was also established by CS/SB 2034, Section 36. Section 381.00325, Florida Statutes, and reads: "The Department of Health shall develop a Hepatitis A awareness program. This program shall include information regarding the appropriate education of the public and information regarding the availability of Hepatitis A vaccine. The department shall work with private businesses and associations in developing the program and disseminating the information."

The Florida Legislature continues to provide funding for the Hepatitis Program from the general appropriations fund; \$3.5 million was appropriated in FY 2000-2001, and again in FY 2001-2002.

TEXAS

In 1998, the Texas Department of Health (TDH) published a white paper on hepatitis C entitled, "Hepatitis C: An Emerging Health Concern for Texans." This paper outlined information about hepatitis C as a growing health concern, proposed health solutions, and estimated the costs of

comprehensively addressing the issue. The white paper was given to Rep. Glen Maxey (D-Austin), a member of the Texas House Committee on Public Health, who was receiving constituent calls regarding hepatitis C. Rep. Maxey used information from the white paper to draft House Bill (HB) 1652, the Education and Prevention Program for Hepatitis C. HB 1652 was passed and signed into law in May 1999.

This bill mandated TDH to conduct seroprevalence studies to determine the current and future impact of hepatitis C on the state; conduct health education, public education, and community outreach activities about the risk factors and the value of early detection; provide training to public health clinic staff; identify to health care providers and employers the benefits of disease awareness and prevention; and develop a prevention program. The bill further required that TDH establish voluntary hepatitis C counseling and testing sites within each public health region. The bill also required TDH to develop and offer a training course for persons providing hepatitis C counseling. The 76th Legislature appropriated approximately \$3 million for the biennium to implement these mandates.

In 2001, the 77th Legislature passed SB 338 which required that TDH develop a statewide plan for the prevention and treatment of hepatitis C. The state plan must include strategies for prevention and treatment of hepatitis C in specific demographic groups that are disproportionately affected by hepatitis C, including persons infected with HIV, veterans, racial or ethnic minorities that suffer a higher incidence of hepatitis C, and persons who engage in high risk behavior, such as IV drug use. The bill requires TDH to seek the input of the public to develop the plan. The plan must be updated every two years. TDH is hiring a state planner to complete this mandate.

SB 338 also required registered nurses to receive no less than two hours of continuing education related to hepatitis C and applies to license holders who renew on or after June 1, 2002. The bill also required the Texas Board of Nurse Examiners to recognize, prepare, or administer a hepatitis C training component for use in continuing education for license holders.

The 77th Legislature also passed HB 767 to require the Texas Commission on Alcohol and Drug Abuse to include six hours of training during each two-year licensing period relating to HIV, hepatitis C, and STDs in continuing education for chemical dependency counselors.

During the 77th Legislature, HB 768 was also passed which changed the name of the HIV/AIDS Interagency Coordinating Council to the Interagency Coordinating Council for HIV and Hepatitis. The bill was designed to facilitate communication between agencies and associations to improve awareness, education, and strategic communication across these organizations regarding hepatitis. Each state agency on the council must send a representative to at least three of the quarterly meetings each year. The council is also required to provide an opportunity for public input. This bill requires the council to file a report containing policy recommendations that include prevention and delivery of hepatitis-related health services no later than September 1 of each even-numbered year with the legislature and the governor.

Appendix A: The HIV-Viral Hepatitis Connection

ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
HAV	Hepatitis A Virus
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug Use/User
MSM	Men who have sex with Men
STD	Sexually Transmitted Diseases

Following is a select annotated bibliography of the public health literature regarding the connection between infection with HIV and with viral hepatitis.

The articles herein were identified either through a search of articles in major journals with textwords "HIV" and "Hepatitis" in the MedLine and/or PsychInfo database from the period 1994-2000, or through a review of sources NASTAD utilizes. Articles were selected for inclusion based upon their relevance for public health efforts against viral hepatitis within the context of HIV programs. Note that due to delays in indexing, some relevant articles may not be included. Articles are organized under the following 3 subject headings: Care and Treatment, Epidemiology and Prevention.

Readers who are aware of important articles not included in this review are encouraged to send copies to NASTAD's Viral Hepatitis Program at the following address: lschowalter@nastad.org.

CARE & TREATMENT

Bessensen, Mary; Ives, David; Condreay, Lynn; et al. (1999) **Chronic Active Hepatitis B Exacerbations in Human Immunodeficiency Virus-Infected Patients Following Development of Resistance to or Withdrawal of Lamivudine.** *Clinical Infectious Diseases*, Vol. 28, 1032-1035.

Some HIV-HBV coinfecting patients taking lamivudine (a nucleoside analog reverse transcriptase inhibitor used against both viruses) experienced hepatic flares after discontinuing the drug and changing to a different regimen.

Buffington, Joanna; Rowel, Randy; Hinman, Johanna M.; Sharp, Katherine; Choi, Simon. (2001) **Lack of Awareness of Hepatitis C Risk Among Persons Who Received Blood Transfusions Before 1990.** *American Journal of Public Health*, Vol. 91, No. 1, pp. 47-48.

Nine focus groups conducted in the United States with individuals who received blood transfusions prior to 1990 identified an overall lack of awareness of HCV and a lack of perception of risk. Targeted campaigns are needed to increase awareness among individuals who received transfusions prior to 1992.

Crawford, Anne M. (1996) **Stigma associated with AIDS: A Meta-Analysis.** Journal of Applied Social Psychology, Vol. 26, No. 5, pp. 398-416.

This meta-analysis of 21 studies compared the stigma associated with AIDS with that associated with other stigmatized conditions, including hepatitis. The meta-analysis found that "there is a somewhat greater degree of stigma associated with AIDS." However, it is worth noting that the articles included only the period 1980-1992.

Davis, Gary L.; Balart, Luis A.; Schiff, Eugene R.; et al. (1994) **Assessing Health-Related Quality of Life in Chronic Hepatitis C Using the Sickness Impact Profile.** Clinical Therapeutics, Vol. 16, No. 2, pp. 334-343.

The Sickness Impact Profile was used to identify the impact of both chronic hepatitis C and treatments with alfa interferon. Pre-treatment, patients scored significantly worse than a control group of the general population, but demonstrated significant improvement in work, sleep and rest, and recreation and pastimes scores post-treatment.

Davis, Hillel; Kaplan De-Neour, Atara; Shouval, Daniel; et al. (1998) **Psychological Distress in Patients with Chronic, Nonalcoholic, Uncomplicated Liver Disease.** Journal of Psychosomatic Research, Vol. 44, No. 5, pp. 547-554.

Even asymptomatic liver disease can lead to significant psychological distress. In a study of 80 subjects with minimal hepatitis or cirrhosis, 64 had minimal or no physical symptoms yet 50% reported distress, which was severe for 15%. Mental health diagnoses were possible among 45% of the asymptomatic individuals. These findings were attributed to concern about the disease and/or to possible subtle changes in central nervous system functioning.

Deinstag, Jules L.; Schiff, Eugene R.; Mitchell, Mark (1999) **Extended Lamivudine Retreatment for Chronic Hepatitis B: Maintenance of Viral Suppression After Discontinuation of Therapy.** Hepatology, Vol. 30, No. 4, pp. 1082-1087.

Sustained use of lamivudine, an antiretroviral medication used to treat both HIV and HBV, is able to eliminate HBV, and it may be possible to discontinue therapy after confirmed loss of hepatitis B antigens or antibodies.

Del Pozo, M.A.; Arias, J.R.; Pinilla, J. et al. (1998) **Interferon Alpha Treatment of Chronic Hepatitis C in HIV-Infected Patients Receiving Zidovudine: Efficacy, Tolerance and Response Related Factors.** Hepato-Gastroenterology, Vol. 45, pp. 1695-1701.

Recombinant interferon alpha therapy is reported to be an effective therapy, particularly with active chronic HCV patients who are HIV-positive, on zidovudine, and have CD4+ cell counts below 200.

Edlin, Brian R.; Seal, Karen H.; Lorvick, Jennifer; Kral, Alex H.; Ciccarone, Daniel H.; Moore, Lisa D.; Lo, Bernard. (2001) **Is It Justifiable To Withhold Treatment For Hepatitis C From Injection Drug Users?** New England Journal of Medicine, Vol. 345, No. 3, pp. 211-214.

This article challenges the 1997 National Institutes of Health consensus statement on the management of hepatitis C that recommends that persons who use illicit drugs not be offered treatment for hepatitis C infection until they had abstained from use for at least six months. The authors consider four possible arguments for withholding treatment of HCV infection from drug users: poor adherence to treatment regimens, side effects of treatment, the risk of re-infection with HCV, and the lack of urgency regarding the initiation of treatment for HCV infection. The authors demonstrate that there is little evidence to support the arguments against treatment, and propose an alternative policy based on individualized risk.

Heddle, Nancy; Kelton, John G.; Smaill, Fiona; et al. (1997) **A Canadian hospital-based HIV/hepatitis C look-back notification program.** Canadian Medical Association, Vol. 157, No. 2, pp. 149-154.

Pediatric patients in Canada who received blood transfusions before the start of routine screening for HIV (1985) and HCV (1990) were notified through a look back program. Of 1024 (of 1546) patients successfully reached with a questionnaire, 493 responded. Most had not subsequently been tested for HIV or HCV but indicated that that they would be as a result of the letter, supporting the use of notification programs.

Joseph, A.T.; Chandraman, S.; Cox M. (2000) **The need to exercise caution in the management of patients co-infected with HIV and hepatitis B (letter).** International Journal of STD & AIDS, Vol. 11, pp. 131-132.

In a case study of a patient co-infected with HIV and HBV, Joseph, Chandramani, and Cox (2000) reported that the patient died after treatment with HAART. "Even though the cause for his deterioration is unclear, it is possible that the liver damage could have been more severe than initially thought, subsequently aggravated by drug therapy. This case illustrates

the need to exercise caution when co-infected patients are considered for treatment, especially those with mildly decompensated cirrhosis and the need to include liver histology in the evaluation process.”

Klaus, Barbara D.; Grodesky, Michael J. (1998) **Implications of HIV and Hepatitis C Coinfection.** The Nurse Practitioner, Vol. 23, No. 12, pp. 78-81.

A review of the issues relating to HIV-HCV coinfection from the perspective of the nursing profession. “Clinicians caring for patients with both HIV and HCV infection should consider referring these patients to experienced hepatologists for treatment option evaluation.”

Owens, D.K.; Cardinalli, A.B.; Nease, Jr., R.F. (1997) **Physicians’ assessments of the utility of health states associated with Human Immunodeficiency Virus (HIV) and Hepatitis B (HBV) infection.** Quality of Life Research, Vol. 6, pp. 77-85.

In an survey, 200 house staff and physicians ranked the impact of HIV and HBV on quality of life (QoL) with a ranking system in which 0=death and 1=good health. The respondents provided scores of 0.833 for asymptomatic HIV and 0.917 for asymptomatic HBV, recognizing that both diseases have an impact on QoL even before the onset of symptoms. Symptomatic HIV was scored at 0.417 and mildly symptomatic HBV at 0.667, indicating significant impairment by both conditions. AIDS (i.e., late stage HIV disease) and severely symptomatic HBV (i.e., cirrhotic complications of liver disease) were provided identical scores of 0.167, indicating a QoL in the lowest quartile. Overall, even HBV with only moderate symptoms was scored lower on the QoL scale than almost all other non-HIV conditions, including moderate stroke, monocular blindness, and severe angina. The authors indicate that their findings should be incorporated into the policymaking process: “Cost-effectiveness studies of HIV interventions should account for the effect of the intervention on both mortality and morbidity, particularly when the morbidity of the condition is severe.” (Owens, Cardinalli, and Nease 1997)

Renaud, Anne; Ryan, Bill; Cloutier, Dianne; et al. (1997) **Knowledge and Attitude Assessment of Quebec Daycare Workers and Parents Regarding HIV/AIDS and Hepatitis B.** Canadian Journal of Public Health, Vol. 88, No. 1, pp. 23- 26.

Following the implementation of information sessions for parents and workers in Quebec daycare centers, a large number of participating institutions developed their own proactive policies for care of children infected with HIV and/or HBV.

ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
HAV	Hepatitis A Virus
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug Use/User
MSM	Men who have sex with Men
STD	Sexually Transmitted Diseases

EPIDEMIOLOGY

Alter, Miriam J.; Kruszon-Moran, Deanna; Nainan, Omana V.; McQuillan, Geraldine M.; Gao, Fengxiang; Moyer, Linda A.; Kaslow, Richard A.; Margolis, Harold S. (1999) **The Prevalence of Hepatitis C Virus Infection in the United States, 1988 Through 1994**. The New England Journal of Medicine, Vol. 341, pp. 556-562.

The authors performed antibody tests for HCV on 21,241 persons 6 years or older who participated in the 3rd NHANES, which was conducted from 1988-1994. Overall prevalence of HCV was 1.8%--corresponding to an estimated 3.9 million persons nationwide. 74% were positive for HCV RNA, indicating that 2.7 million Americans were chronically infected, of whom 73.7% were infected with genotype 1. Strongest independent factors associated (among 17-59 year olds) were illegal drug use and high-risk sexual behavior.

Armstrong, Gregory L.; Alter, Miriam J.; McQuillan, Geraldine, M.; Margolis, Harold S. (2000) **The Past Incidence of Hepatitis C Virus Infection: Implications for the Future Burden of Chronic Liver Disease in the United States**. Hepatology, Vol. 31, No. 3, pp. 777-782.

Using mathematical modeling, the authors project the future burden of HCV in the United States. The model showed a period of low incidence before 1965, a transition period from 1965 to 1980, and a period of high incidence in the 1980s. The authors conclude prevalence of HCV may be declining because of the decline in incidence in the 1990's; but the number of persons infected for 20 or more years may increase substantially before peaking in 2015.

Broers, Barbara; Junet, Christian; Bourquin, Michel; et al. (1998) **Prevalence and incidence rate of HIV, hepatitis B and C among drug users on methadone maintenance treatment in Geneva between 1988 and 1995**. AIDS, Vol. 12, pp. 2059-2066.

A cohort of drug users in methadone maintenance therapy in Geneva, Switzerland was tested over time for HIV, HBV, and HCV infection. The prevalence of all three viruses at entry to the program declined markedly over time. Comparing those who entered before 1988 versus those who entered after 1993 by which time extensive prevention outreach had been undertaken, HIV seroprevalence rates dropped from 38.2% to 4.5%, HBV rates from 80.5% to 20.1%, and HCV rates from 91.6% to 29.8%. "The data suggest that [drug users] have changed HIV risk-taking behavior in response to HIV prevention campaigns."

Cattaneo, C.; Nuttall, P.A.; Molendinik L.O.; et al. (1999) **Prevalence of HIV and hepatitis C markers among a cadaver population in Milan.** Journal of Clinical Pathology, Vol. 52, pp. 267-270.

A substantial number of cases in a study of cadavers in Milan had no identifiable risk for HIV or HCV but were infected with one or the other, suggesting that there may be a large unrecognized pool of potential infection.

Gilson, Richard J.C.; Hawkins, Anna E.; Beecham, Michael R. (1997) **Interactions between HIV and hepatitis B virus in homosexual men: effects on the natural history of infection.** AIDS, Vol. 11, pp. 597-606.

Response in: Bonacini, M. (1997) **Interaction between HIV and hepatitis B (letter).** AIDS, Vol. 11, No. 14, pp. 1789-1790.

A natural history study by Gilson et al. (1997) indicates that HIV infection is associated with higher HBV DNA polymerase activity in HBV carriers. HIV infection increases HBV replication, leading to increased and prolonged HBV infectivity. However, it also suggests that HIV-related immunosuppression gives rise to less active liver disease. (There was no evidence of an important effect of HBV carriage on HIV disease progression.) However, this finding was challenged in a letter to the editor by Bonacini (1997) citing evidence "against the theory that HIV leads to 'intrahepatic' immunosuppression."

Gore, S.M.; Brettell, P.; Burns, S.M.; et al. (1998) **Early Mortality of Undiagnosed but Prevalent (in 1983-1984) HIV Infection in Lothian Injectors who Tested Hepatitis B Surface Antigen Positive (Group A) or Negative but were High Risk for Blood-borne Virus Transmission (Group B) in 1983-1984.** Journal of Infection, Vol. 37, pp. 166-172.

This epidemiological study tracked mortality rates among inmates affected by a 1983-1984 outbreak of HIV and HBV in Scotland. An high early death rate (i.e., death within two years of HIV infection) of 10% was identified among HIV-infected injectors. Since HIV and HBV infection was likely to have occurred at the same time, it is possible that the simultaneous co-infection influenced the rapid progression to death.

Heinen, Michael N.; Lloyd, Larry (1997) **HIV, Hepatitis B, and Hepatitis C in the Code One Trauma Population.** The American Surgeon, Vol. 63, No. 7, pp. 657-659.

Code One trauma patients (i.e., those with an immediate threat to life or limb) revealed higher levels of HIV (0.52%), HBV (1.5%) and HCV (13.8%) than in the overall trauma population or the general population.

Hope, Vivian D.; Judd, Ali; Hickman, Matthew; Lamagni, Theresa; Hunter, Gillian; Stimson, Gerry V.; Jones, Steve; Donovan, Linda; Parry, John V.; Gill, O.N. (2001) **Prevalence of Hepatitis C Among Injection Drug Users in England and Wales: Is Harm Reduction Working?** American Journal of Public Health, Vol. 91, No. 1, pp. 38-42.

A cross-sectional study surveying drug users who injected in the previous 4 weeks was conducted at drug agencies (n=2203) and in the community (n=758). The prevalence was 30% for anti-HCV, 21% for anti-HBV, and 0.9% for HIV antibodies. Forty-six percent of the sample had injected for less than 6 years. The 30% prevalence of HCV was much lower than in other studies. Among those who had been injecting for less than 3 years, the prevalence was 7.4%, and the estimated incidence among those who had begun injecting in the previous 2 years was below 5.0%. The findings suggest that the prevalence of HCV infection among IDUs in England and in Wales is lower than in other industrialized countries.

Ippolito, Guiseppe; Puro, Vincenzo; Petrosillo, Nicola; et al. (1998) **Simultaneous Infection with HIV and Hepatitis C Virus Following Occupational Conjunctival Blood Exposure.** JAMA, Vol. 28, No. 1, p. 28.

This case study indicated that simultaneous occupational infection with HIV and HCV led to rapid hepatic failure and death. The authors speculate that acute co-infection could "interfere with initial immune response to HIV and higher HIV burden and more rapid HIV progression."

Lorvick, Jennifer; Kral, Alex H.; Seal, Karen; Gee, Lauren; Edlin, Brian R. (2001) **Prevalence and Duration of Hepatitis C Among Injection Drug Users in San Francisco, Calif.** American Journal of Public Health, Vol. 91, No. 1, pp. 46-47.

372 stored serum samples collected in 1987 from injection drug users participating in an HIV prevalence and risk behavior study conducted in San Francisco, CA were tested for HCV antibody using the ELISA test. 353 (95%) tested positive for HCV antibody. Of those injecting 2 years or less, 75.9% were infected. Of those injecting for more than 10 years, 98.8% were infected.

Malliori, M.; Sypsa, V.; Psychogiou, M; et al. (1998) **A survey of bloodborne viruses and associated risk behaviors in Greek prisons.** *Addiction*, Vol. 93, No. 2, pp. 243-251.

A study among 544 drug users imprisoned for drug-related offenses in Greece found that only one was HIV-positive (.19%), but 58.2% had hepatitis C antibodies and 57.6% had hepatitis B antibodies. [[See also: Wada](#), below]

Mast, Eric E. & Alter, Miriam J. (1999) **Viral Hepatitis A, B, and C in the Newborn Infant. Seminars in Pediatric Infectious Diseases**, Vol. 10, No. 3, pp. 201-207.

This epidemiology, clinical features, diagnosis, treatment, and prevention of hepatitis A, B, and C in newborn infants is discussed. Viral hepatitis in infants is not often recognized because infected infants are usually asymptomatic, but it can be devastating: infants infected with HBV and HCV usually develop chronic infection.

Newell, A.; Nelson, M. (1998) **Infectious hepatitis in HIV-seropositive patients.** *International Journal of STD & AIDS*, Vol. 9, pp. 63-69.

A review article covering a broad range of aspects of HIV-viral hepatitis coinfection. [Note: this article includes 116 references.]

Pallas, J.; Farinas-Alvarez, C.; Prieto, D. et al; (1999) **Risk factors for mono-infections and coinfections with HIV, hepatitis B and hepatitis C viruses in northern Spanish prisoners.** *Epidemiology of Infectious Diseases*, Vol. 123, pp. 95-102.

Among a cohort of Spanish prisoners, coinfections with HIV, HBV, and HCV were more common than mono-infections. Risk of coinfection rose with history of IDU and with duration of incarceration.

Pallas, Jose R.; Farinas-Alvarez, Concepcion; Prieto, Dolores, et al. (1999) **Coinfections by HIV, hepatitis B and hepatitis C in imprisoned injecting drug users.** *European Journal of Epidemiology*, Vol. 15, pp. 699-704.

ABBREVIATIONS

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HIV	Human Immunodeficiency Virus
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Among 362 Spanish prisoners, HBV-HCV coinfection was higher, at 42.5%, than HIV-HBV-HCV coinfection (37.3%), while mono-infections were uncommon (overall 13%). Long-term IDU and re-incarceration were the foremost risk factors for coinfections.

Rosenberg, Stanley D.; Goodman, Lisa A.; Osher, Fred C.; Swartz, Marvin S.; Essock, Susan M.; Butterfield, Marian I.; Constantine, Niel T.; Wolford, George L.; Salyers, Michelle P. (2001) **Prevalence of HIV, Hepatitis B, and Hepatitis C in People With Severe Mental Illness**. American Journal of Public Health, Vol. 91, No. 1, pp. 31-37.

Participants undergoing inpatient (n=323) or outpatient (n=608) treatment for mental illness in Connecticut, Maryland, New Hampshire, and North Carolina were tested for HIV, HBV, and HCV. The prevalence of HIV infection in the sample was 3.1%, which is 8 times the estimated US population rate. Prevalence rates of HBV (23.4%) and HCV (19.6%) were approximately 5 and 11 times the overall estimated population rates for these infections, respectively.

Staples, C.T.; Rimland, D.; Dudas, D. (1999) **Hepatitis C in the HIV (Human Immunodeficiency Virus) Atlanta V.A. (Veterans Affairs Medical Center) Cohort Study (HAVACS): The Effect of Coinfection on Survival**. Clinical Infectious Diseases, Vol. 29, pp. 150-154.

A univariate analysis of a cohort of HIV-positive patients found that those co-infected with HCV were more likely to be older, positive for HBV antibodies and report IDU. However, length of survival and overall disease progression among people with HIV did not appear to be influenced by HCV status. [Note: the study was based on data collected 1992-1997; survival rates for individuals with HIV have changed dramatically since that time.]

Vellinga, A.; Van Damme, P.; Meheus, A. (1999) **Hepatitis B and C in institutions for individuals with intellectual disability**. Journal of Intellectual Disability Research, Vol. 43, Part 6, pp. 445-453.

A review of the literature on HBV and HCV prevalence, risk factors, transmission, and prevention among individuals with intellectual disability.

Wasley, AnneMarie & Alter, Miriam J. (2000) **Epidemiology of Hepatitis C: Geographic Differences and Temporal Trends**. Seminars in Liver Disease, Vol. 20, No. 1, pp. 1-16. Three distinct transmission patterns of HCV were found looking at age-specific, global prevalence data. Much of the variability was explained by the different risk factors contributing to HCV. The United States falls in the first pattern in which most infections are found among persons 30-49 years and occurred within the recent past (10-30 years); in these countries, injection drug use has been the greatest risk factor. Effective prevention efforts hinge on determining the epidemiology of HCV infection in countries where data has not yet been assessed.

PREVENTION

Alter, Miriam J. & Moyer, Linda A. (1998) **The Importance of Preventing Hepatitis C Virus Infection Among Injection Drug Users in the United States**. Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology, Vol. 18 (Suppl 1), pp. S6-S10.

Forty-three percent of persons with newly acquired HCV during the past 5 years reported injecting street drugs during the 6 months before the onset of illness. HCV appears to be transmitted rapidly after initiating injection, which suggests that prevention efforts should target young IDUs. The authors suggest the following prevention strategies: prevention of the initiation of injection drug use; abstaining from injection drug use; substance abuse treatment; the use of sterile syringes; abstaining from sharing syringes and drug preparation equipment with other IDUs; and changing prescription and pharmacy laws to provide reliable sources for IDUs to obtain sterile syringes.

American Association of Colleges of Nursing (1997) **Policy and Guidelines for Prevention and Management of Human Immunodeficiency Virus and Hepatitis B Virus Infection in the Nursing Education Community**. Journal of Professional Nursing, Vol. 13, No. 5, pp. 325-328.

Health care workers are at risk for both HIV and HCV. Policy guidelines established by the American Association of Colleges of Nursing (1997) recognize the dangers of both viruses. Noting that HBV kills 200 health care workers annually, the policy calls for mandatory HBV vaccination.

American Medical Association, Council on Scientific Affairs (1996) **Health Care Needs of Gay Men and Lesbians in the United States**. JAMA, Vol. 275, No. 17, pp. 1354-1355.

This American Medical Association policy statement on "Health Care Needs of Gay Men and Lesbians in the United States" states that "all forms of hepatitis can occur in gay male patients. Because of the risk for hepatitis B infection, sexually active gay and bisexual men should receive the hepatitis B vaccine. In general, gay men are at greater risk for contracting hepatitis B than hepatitis C virus infection, which is frequently transmitted by injecting drugs."

Borg, Lisa; Khuri, Elizabeth; Wells, Aaron; et al. (1999) **Methadone-maintained former heroin addicts, including those who are anti-HIV-1 seropositive, comply with and respond to hepatitis B vaccination**. Addiction, Vol. 94, No. 4, pp. 489-493.

Despite complications, it is possible to achieve compliance with the three-shot course of hepatitis B vaccination. Among cohort of HIV-positive former heroin addicts in methadone maintenance, 86% completed the six-month vaccination series.

Cassidy, William M; Mahoney, Frank J. (1995) **A Hepatitis B Vaccination Program Targeting Adolescents**. Journal of Adolescent Health, Vol. 17, pp. 244-247.

After an educational campaign and a program of in-school vaccinations, two-thirds of a middle school population received the full three doses of the hepatitis B vaccine. Of those without pre-existing immunity to HBV, 96% developed protective levels of antibodies to HBV.

Cockcroft, A.; Elford, J. (1994) **Clinical practice and the perceived importance of identifying high risk patients**. Journal of Hospital Infection. Vol. 28, pp. 127-136.

A survey of British health care providers revealed that those who believed they could identify patients at high risk for HIV or viral hepatitis were less likely to practice universal precautions. The article argues that effective implementation of universal precautions requires addressing underlying beliefs among health care workers.

Crampin, A.C.; Lamage, T.L.; Hope, V.D.; et al. (1998) **The risk of infection with HIV and hepatitis B in individuals who inject steroids in England and Wales.** Epidemiology of Infectious Disease, Vol. 121, pp. 381-386.

A British cohort of injectors of anabolic steroids had dramatically lower levels of HIV and HBV than cohorts of heroin or amphetamine injectors, and also rarely shared needles, suggesting the need to treat steroid injectors differently than other IDUs.

Crofts, Nick; Nigro, Luciano; Oman, Kimberly; et al. (1997) **Methadone maintenance and hepatitis C virus infection among injecting drug users.** Addiction, Vol. 92, No. 8, pp. 999-1005.

This article argues that the value of methadone maintenance therapy for HCV prevention is unclear, given that although such programs do decrease injection episodes even a single relapse into injecting behavior can lead to transmission due to the high efficiency of HCV transmission. "Patients who are seropositive for HCV need counseling about all aspects of their infection, including methods to minimize the risk of further transmission. This counseling must emphasize not sharing any injecting equipment or allowing any blood contamination of objects or surfaces which can carry the virus to others." This advice is relevant for both HCV-positive and HCV-negative patients due to the risk of reinfection with other subtypes of HCV.

Diaz, Theresa; Des Jarlais, Don C.; Vlahov, David; Perlis, Theresa E.; Edwards, Vincent; Friedman, Samuel R.; Rockwell, Russell; Hoover, Donald; Williams, Ian T.; Monterroso, Edgar R. (2001) **Factors Associated With Prevalent Hepatitis C: Difference Among Young Adult Injection Users In Lower and Upper Manhattan, New York City.** American Journal of Public Health, Vol. 91, No. 1, pp. 23-30.

Correlates of prevalent HCV infections among young adult IDUs in 2 neighborhoods in New York City were examined. Participants were recruited from the Lower East Side and Harlem. In both sites, testing positive for HCV antibody was associated with having injected for more than three years. Participants were asked about drug use and sexual behaviors and the authors found several differences in factors associated with prevalent HCV infection among two populations of young injection drug users from the same city.

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HIV	Human Immunodeficiency Virus
IDU	Injecting Drug Use/User
MSM	Men who have sex with Men
STD	Sexually Transmitted Diseases

Hagan, Holly; Thiede, Hanne; Weiss, Noel S.; Hopkins, Sharon G.; Duchin, Jeffrey S.; Alexander, E.R. (2001) **Sharing of Drug Preparation Equipment as a Risk Factor for Hepatitis C.** American Journal of Public Health, Vol. 91, No. 1, pp. 42-46.

The risk for HCV infection from sharing cookers, cotton, and water used to prepare drugs for injection was examined, and it was found that among injection drug users who do not share syringes, 54% of HCV infections were attributable to sharing cookers and cotton.

Hagan, Holly; Des Jarlais, Don C.; Freidman, Sam R.; Purchase Dave; Alter, Miriam J. (1995) **Reduced risk of hepatitis B and C among injection drug users in the Tacoma syringe exchange program.** American Journal of Public Health, Vol. 85, pp. 1531-37.

This case-control study found that non-use among injectors of the syringe exchange program was associated with a sixfold greater risk of HBV and a sevenfold greater risk of HCV.

Hagan, Holly; McGough, James P.; Thiede, Hanne; Weiss, Noel S.; Hopkins, Sharon; Alexander, E. Russell (1999) **Syringe Exchange and Risk of Infection with Hepatitis B and C Viruses.** American Journal of Epidemiology, Vol. 149, No. 3, pp. 203-213.

No protective benefit of the Seattle-King County Department of Public Health's needle exchange program on HBV and HCV infection among a cohort of IDUs was found. On average, regular users of the exchange injected more frequently than sporadic- and non-users of the exchange, and reported more high-risk behaviors (i.e. sharing drug preparation equipment, backloading).

Heimer, Robert; Khoshnood, Kaveh; Bigg, Dan; et al. (1998) **Syringe Use and Reuse: Effects of Syringe Exchange Programs in Four Cities.** Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology, Vol. 18 (Suppl.), pp. S37-S44.

In four American cities (New Haven, Baltimore, Chicago, and San Francisco), after the introduction of syringe-exchange programs, the average number of injections per syringe was halved and there was a significant rise in once-only use of syringes. There was also a rapid decline in the percentages of syringes that had been used by HIV- or HBV-infected injectors.

Kane, Mark; Meheus, Andre; Van Damme, Pierre (1998) **Control of Hepatitis B in Europe: Where Are We in 1997?** Special Issue of Vaccine, Vol. 16, Suppl., pp. S1-S81.

This issue of the journal Vaccine covers HBV issues including the evolution of the Viral Hepatitis Control Board, various European programs, and articles regarding HBV control in Spain, Greece, the US, the UK, and the Scandinavian countries.

Lawrence, Monique H.; Goldstein, Mark A. (1995) **Hepatitis B Immunization in Adolescents**, Journal of Adolescent Health, Vol. 17, pp. 234-243.

This broad review of HBV vaccination policy in the US tracks the failure of attempts to identify and vaccinate only high risk adolescents. It recommends universal hepatitis B vaccination in a school-based setting during the middle school years, a strategy which could potentially lead to eradication of hepatitis B in the United States.

Lurie, Peter; Fernandes, Maria Eugenia Lemos; Hughes, Veronica; et al. (1995) **Socioeconomic status and risk of HIV-1, syphilis and hepatitis B infection among sex workers in Sao Paulo State, Brazil**. AIDS, Vol. 9, Suppl. 1, pp. S31-S37.

A study of socioeconomic status (SES) among sex workers in Brazil (Lurie et al., 1997) found a strong correlation between SES and disease acquisition. Those with higher as opposed to lower SES had lower rates of HIV (4% vs. 17%), syphilis (24% vs. 66%), and HBV (26% vs. 52%).

Marron, Rebecca L.; Lanphear, Bruce P.; Kouides, Ruth; et al. (1998) **Efficacy of Informational Letters on Hepatitis B Immunization Rates in University Students**. College Health, Vol. 47, pp. 123-127.

Informational letters sent to a group of college students led 10.7% to receive HBV immunizations (vs. 1.9% in a control group). Students at higher risk for HBV were more likely to be go for an immunization.

Mast, Eric E.; Mahoney, Frank J.; Alter, Miriam J., et al. (1998) **Progress toward elimination of hepatitis B virus transmission in the United States**. Vaccine, Vol. 16, pp. S48-S51.

An overview by CDC officials, this article reviews progress in implementing the national strategy to eliminate HBV. Goals for the program, which had in 1998 been met to varying

degrees, included: 1) preventing perinatal transmission; 2) routine infant vaccination; 3) catch-up vaccination of children in high risk groups at all ages; 4) catch-up vaccination of all children ages 11-12; and 5) vaccination of adults and adolescents in high risk groups. At the time of writing, emphasis was on improving complete immunoprophylaxis of infants born to mothers with HBV, increasing vaccine coverage among children ages 11-12, and implementing vaccination programs for high risk adults and adolescents.

Mast, Eric E.; Alter, Miriam J.; Margolis, Harold S. (1999) **Strategies to prevent and control hepatitis B and C virus infections: A global perspective.** Vaccine, Vol. 17, pp. 1730-1733.

Approximately 30% of the world's population is infected with HBV; the authors emphasize the importance of preventing perinatal transmission, providing routine childhood vaccination and vaccinating high-risk groups, and preventing nosocomial transmission. An estimated 3% of the world's population is infected with HCV; the authors stress the importance of utilizing primary prevention strategies which target nosocomial risks and high-risk behaviors (i.e. injection drug use, unprotected sex with multiple partners) and using secondary prevention strategies (i.e. medical management, abstaining from alcohol) to reduce the risk for liver disease.

Moor, A.C.E.; Dubbelman, T.M.A.R.; VanSteveninck, J; et al. (1999) **Transfusion-transmitted diseases: risks, prevention and perspectives.** European Journal of Haematology, Vol. 62, pp. 1-18.

While the introduction of blood donor counseling and screening has significantly reduced rates of bloodborne pathogens in the blood supply, there is still some possibility for HIV or viral hepatitis to enter the blood supply. However, new technologies (e.g., polymerase chain reaction) are expected to continue to reduce this risk in the developed world, where they are affordable, but not necessarily in the developing world. [Note: this article includes 183 references.]

Moore-Caldwell, Sharon Y.; Werner, Mark J.; Powell, Laura; et al. (1997) **Hepatitis B Vaccination in Adolescents: Knowledge, Perceived Risk, and Compliance.** Journal of Adolescent Health, Vol. 20, pp. 294-299.

Moore-Caldwell et al. (1997) determined that adolescents had little knowledge of HBV but that parents were better informed, and the more informed parents are about HBV, the lower the reported level of risk-taking behaviors among adolescents.

Neighbors, Katie; Oraka, Chinwe; Shih, Linda; et al. (1999) **Awareness and Utilization of the Hepatitis B Vaccine Among Young Men in the Ann Arbor Area Who Have Sex with Men**. College Health, Vol. 47, pp. 173-178.

In a study of MSM in a college town, two-thirds were aware of a hepatitis B vaccine, but only one-fifth had received the full three-dose series. Respondents expressed willingness to be vaccinated, a task which could be undertaken by university health services in a college-town setting.

O'Connor, J. Barry; Imperiale, Thomas F.; Singer, Mendel E. (1999) **Cost-Effectiveness Analysis of Hepatitis A Vaccination Strategies for Adults**. Hepatology, Vol. 30, No. 4, pp. 1077-1081.

In a cost-effectiveness study, mass hepatitis A vaccination of the general population was determined not to be cost-effective, but could be for particular areas or populations in which hepatitis A is endemic.

Panda, S.; Chatterjee, A.; Bhattacharjee, S.; et al. (1998) **HIV, hepatitis B and sexual practices in the street-recruited injecting drug users of Calcutta: risk perception versus observed risks**. International Journal of STD & AIDS, Vol. 9, pp. 214-218.

A male IDU research cohort in Calcutta was 20% HBV antigen positive. Condom use was rare even though nearly three-quarters reported sex with prostitutes and nearly 90% had shared needles.

Resti, Massimo; Azari, Chiara; Mannelli, Francesco; et al. (1998) **Mother to child transmission of hepatitis C virus: prospective study of risk factors and timing of infection in children born to women seronegative for HIV-1**. BMJ, Vol. 37, pp. 437-441.

HCV can be transmitted perinatally; 13 of 403 children born to HCV positive/HIVnegative women became infected with HCV.

ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
HAV	Hepatitis A Virus
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug Use/User
MSM	Men who have sex with Men
STD	Sexually Transmitted Diseases

Romanowski, Barbara; Campbell, Patricia J.; Preiksaitis, Jutta K.; et al. (1997) **Human Immunodeficiency Virus Seroprevalence and Risk Behaviors in Patients Attending Sexually Transmitted Disease Clinics in Alberta.** Sexually Transmitted Diseases, Vol. 24, No. 8, pp. 487-494.

This study of Canadian STD clinic attendees revealed a prevalence of 1.5% for HIV and 3.4% for HCV; prevalence of both viruses was associated with IDU and exchanging sex for money or IDU.

Seage III, George R.; Mayer, Kenneth; Lenderking, William R. (1997) **HIV and Hepatitis B Infection and Risk Behavior in Young Gay and Bisexual Men.** Public Health Reports, Vol. 112, pp. 158-167.

Among a cohort of 390 young MSM in Boston, HIV and HBV prevalence were low. Intervention was called for among those most likely to have unprotected anal intercourse, notably those with histories of STDs, alcohol abuse and depression.

Shriver, Mike; de Burger, Ron; Brown, Christopher; et al. (1998) **Bridging the Gap between Science and Practice: Insight to Researchers from Practitioners.** Public Health Reports, Vol. 113, Suppl. 1, pp. 189-193.

Policy advocates and practitioners provide recommendations for researchers to facilitate the translation of research on IDUs into practice at the programmatic level. Recommendations discuss access and dissemination issues, developing user-friendly publications, forging partnerships outside the research arena, taking the research into the field, and challenges for the future. The authors note: "If researchers do not take the time to translate HIV prevention science into usable information for people at the implementation, government, and policy levels, then this vital HIV prevention information will have little or no positive impact on policy, programs, or funding."

Sloboda, Zili (1998) **What We Have Learned from Research about the Prevention of HIV Transmission among Drug Abusers.** Public Health Reports, Vol. 113, Suppl. 1, pp. 194-204.

A review of research into prevention interventions among drug abusers revealed that successful interventions engage abusers, specify target behaviors and attitudes for intervention, suggest useful settings, and recommend booster approaches.

Smyth, Bobby P.; Kennan, Eamon; O'Connor, John J. (1999) **Evaluation of the impact of Dublin's expanded harm reduction programme on prevalence of hepatitis C among short-term injecting drug users.** Journal of Epidemiology and Community Health, Vol. 53, pp. 435-435. An expansion of harm reduction services to IDUs (i.e., increased number of needle exchange programs, outreach workers, and counselors) was followed by a twofold reduction in the likelihood of HCV infection.

Stark, Klaus; Muller, Reinhold; Beinzle, Ulrich; et al. (1996) **Frontloading: a risk factor for HIV and hepatitis C virus infection among injecting drug users in Berlin.** AIDS, Vol. 10 pp., 311-317.

In a cohort of 324 IDUs in Berlin, 84% had practiced frontloading (i.e., two or more IDUs using one syringe to prepare a drug solution before sharing it) with non-sterile equipment; more than half of those had done so over 100 times. Seroprevalence rates for HIV, HBV and HCV increased with number of frontloading, with HCV rates reaching as high as 94%. The article notes that even in localities with sterile syringe access and/or needle exchange programs, frontloading may still constitute a significant public health threat.

Strathdee, Steffanie A.; Patrick, David M.; Currie, Sue L.; et al. (1997) **Needle exchange is not enough: lessons from the Vancouver injecting drug use study.** AIDS, Vol. 11, pp. F59-F65.

Strathdee et al. (1997) conducted a study with a prospective cohort of injecting drug users in Vancouver, Canada, which has had a needle exchange program (NEP) since 1988 and distributes 2 million needles annually. Although 93% had attended the NEP, HIV seroprevalence was 23% and HCV seroprevalence was 88%. "Whereas NEP are crucial for sterile syringe provision, they should be considered one component of a comprehensive program including counseling, support, and education."

Thorpe, Lorna E.; Ouellet, Lawrence J.; Levy, Jennie R.; Williams, Ian T.; Monterroso, Edgar R. (2000) **Hepatitis C Virus Infection: Prevalence, Risk Factors, and Prevention Opportunities among Young Injection Drug Users in Chicago, 1997-1999.** The Journal of Infectious Diseases, Vol. 182, pp. 1588-1594.

An HCV prevalence of 27% was found in a sample of 698 adult IDUs (18-30yrs) in Chicago. HCV infection was strongly associated with age and years injecting. Seventy-five percent of the sample reported initiating injection within the last 4 years. This study found a lower prevalence among IDUs than previously reported, emphasizing the need for prevention efforts to target young, newer IDUs.

Van Beek, Ingrid; Dwyer, Robin; Dore, Gregory J.; et al. (1998) **Infection with HIV and hepatitis C virus among injecting drug users in a prevention setting: retrospective cohort study.** BMJ, Vol. 317, pp. 433-437.

Response in: Coutinho, R.A. (1998) **HIV and hepatitis C among injecting drug users: Success in preventing HIV has not been mirrored for hepatitis C (letter).** BMJ, Vol. 317, pp. 424-425.

Van Beek et al. (1998) conducted a retrospective cohort study of injecting drug users in a primary healthcare facility in Australia and revealed that HIV seroincidence was 0.17 per 100 person years but that HCV seroincidence was more than 100 times greater at 20.9 per 100 person years – and 75.6 per 100 person years among those aged less than 20 years. In an editorial commentary on the study, Coutinho (1998) noted that “success in preventing HIV has not been mirrored for hepatitis C.” Noting the greater efficiency of bloodborne transmission of HCV than HIV and higher population seroprevalence rates of HCV than HIV, he notes that prevention messages crafted for HIV are insufficient for HCV among injecting drug users and that prevention messages should be expanded to include “indirect” sharing of cotton, water, and other equipment. This is the case even in Australia, which has had expansive harm reduction policies in place.

Vidal-Trecan, Gwenaëlle; Coste, Joel; Varescon-Pousson, Isabelle; et al. (1998) **Patterns of sexual and injecting risk behaviors in French intravenous drug users not reporting HIV and hepatitis C virus seropositives.** Addiction, Vol. 93, No. 11, pp. 1657-1668.

A study of French intravenous drug users not reporting being infected with HIV or HCV reports numerous overlapping risk behaviors which could lead to HIV and HCV seroconversion, including lending and borrowing of drug

paraphernalia, inconsistent use of condoms, having multiple partners and/or engaging in prostitution, and not using clean needles. Associated behaviors and characteristics included alcohol abuse, homelessness, low educational level, and cocaine use.

Wada, Kiyoshi; Greberman, Sharyn Bowman; Konuma, Kyohei, et al. (1999) **HIV and HCV infection among drug users in Japan**. *Addiction*, Vol. 94, No. 7, pp. 1063-1070.

A study of 32 inpatients in a Japanese substance treatment facility found that none were HIV-positive but 53.8% of methamphetamine-dependent patients had hepatitis C, as did 18.4% of solvent-dependent patients and 5.6% of alcohol-dependent patients. [[See also: Malliori](#), above]

Appendix B:

Leave the Surfing to Us: Quick Links to Frequently Sought Information

Even the most experienced Web surfer can find it a challenge to navigate the ever increasing universe of Websites. So NASTAD has gone ahead and created a list of "quick links" that will bring you directly to some of the more frequently sought types of information about HIV and viral hepatitis. You can type in the links listed below, or access live links on the NASTAD Website by visiting http://www.nastad.org/pro_viral_hepatitis.asp?menu=pro and by scrolling down to and then clicking on Links for Frequently Sought Information regarding Viral Hepatitis.

For the latest news on viral hepatitis and HIV co-infection:

<http://www.hivandhepatitis.com>

For frequently asked questions and answers on viral hepatitis and HIV co-infection:

http://www.cdc.gov/hiv/pubs/facts/HIV-HCV_coinfection.htm

For conference reports on viral hepatitis and HIV co-infection:

Summaries:

http://www.hivandhepatitis.com/int_conf_rpt.html

Full text:

<http://www.hivandhepatitis.com/teleconf.html>

For a report on state-of-the-art treatments for hepatitis:

<http://www.hepb.org/drugwatch.html>

For the NIH Consensus Statement on the Management of Hepatitis C:

http://odp.od.nih.gov/consensus/cons/105/105_statement.htm

For information on liver health:

<http://www.liverfoundation.org/html/livheal.dir/livheal.htm>

For medical news and information on hepatitis:

<http://www.docguide.com/news/content.nsf/PatientResAllcateg/Hepatitis?Opendocument>

For information on HIV, HBV, and HCV clinical trials:

<http://www.veritasmedicine.com/>

For information on hepatitis clinical trials:

<http://www.centerwatch.com/studies/cat79.htm>

For the National Hepatitis C Prevention Strategy:

<http://www.cdc.gov/ncidod/diseases/hepatitis/c/plan/index.htm>

For the Texas Department of Health's Hepatitis C
Prevention Counseling Training:

<http://www.tdh.state.tx.us/hivstd/educate/hepc/default.htm>

For Model Programs for Hepatitis A, B, & C Prevention:

<http://www.hepprograms.org>

For information on Hepatitis C disease management:

<http://www.niddk.nih.gov/health/digest/pubs/chrnhepc/chrnhepc.htm>

For information about Hepatitis A and B vaccinations:

<http://www.niddk.nih.gov/health/digest/pubs/vacc4hep/vacc4hep.htm>

For state-by-state laws regarding Hepatitis B vaccinations:

<http://www.immunize.org/laws/hepb.htm>

For information about Hepatitis B vaccinations among
health care workers:

<http://www.immunize.org/catg.d/2109hcw.htm>

For state-by-state listings of hepatitis support groups:

<http://www.hepfi.org/US-Cities.htm#MN>

For information about pediatric viral hepatitis:

<http://www.pkids.org/hepatitis.htm>

For publications on health care in prisons:

<http://www.ncchc.org/publication.html#pubs>

For information about viral hepatitis among Asians and
Pacific Islanders:

<http://www.aapihp.com/hepbtf/default.asp>

Para informacion en Español:

Sobre la Hepatitis A:

<http://www.niddk.nih.gov/health/digest/pubs/hep/hepaspn/index.htm>

Sobre la Hepatitis B:

<http://www.niddk.nih.gov/health/digest/pubs/hep/hepbspn/index.htm>

Sobre la Hepatitis C:

<http://www.niddk.nih.gov/health/digest/pubs/hep/hepcspn/index.htm>

For information about the international work of the Viral Hepatitis Prevention Board:

<http://www.vhpb.org/>

For an on-line CDC training on hepatitis C:

http://www.cdc.gov/ncidod/diseases/hepatitis/C_Training/edu/default.htm

For CDC's Morbidity and Mortality Weekly Report (MMWR) articles on viral hepatitis:

<http://www.cdc.gov/ncidod/diseases/hepatitis/resource/pubs.htm>

For CDC slide sets on viral hepatitis:

<http://www.cdc.gov/ncidod/diseases/hepatitis/slideset/>

For brochures on viral hepatitis:

<http://www.cdc.gov/ncidod/diseases/hepatitis/resource/brochures.htm>

OR

<http://www.hepfi.org/infomenu.htm>

OR

<http://www.immunize.org/catg.d/free.htm>

OR

<http://www.liverfoundation.org/html/livheal.dir/livheal.htm>

For information about NIH research on viral hepatitis:

<http://www.niaid.nih.gov/dir/labs/lid/purcell.htm>

For information about the city and county health response to viral hepatitis:

<http://www.naccho.org/project41.cfm>

For California's Hepatitis C Strategic Plan:

<http://www.dhs.ca.gov/ps/dcdc/pdf/Hepatitis%20C%20Strategic%20Plan%20-%202001.pdf>

For Maine's Hepatitis C needs assessment, "At the Crossroads: Hepatitis C Infection in Maine":

<http://www.state.me.us/dhs/boh/ddc/hepcfull.doc>